

Harvey S. John

# Rhodora

JOURNAL OF THE  
NEW ENGLAND BOTANICAL CLUB

Conducted and published for the Club, by

MERRITT LYNDON FERNALD, Editor-in-Chief

JAMES FRANKLIN COLLINS

CHARLES ALFRED WEATHERBY

LUDLOW GRISCOM

CARROLL WILLIAM DODGE

} Associate Editors

Vol. 32.

November, 1930.

No. 383.

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**The New England Botanical Club, Inc.**

8 and 10 West King St., Lancaster, Pa.

Room 1001, 53 State St., Boston, Mass.

**RHODORA.**—A monthly journal of botany, devoted primarily to the flora of New England. Price, \$2.00 per year, postpaid (domestic and foreign); single copies (if available) 20 cents. Volumes 1-8 or single numbers from them can be supplied at somewhat advanced prices which will be furnished on application. Notes and short scientific papers, relating directly or indirectly to the plants of the northeastern states, will be considered for publication to the extent that the limited space of the journal permits. Forms will be closed five weeks in advance of publication. Authors (of more than two pages of print) will receive 25 copies of the issue in which their contributions appear. Extracted reprints, if ordered in advance, will be furnished at cost.

Address manuscripts and proofs to

M. L. FERNALD, 14 Hawthorn Street, Cambridge, Mass.

Subscriptions (making *all remittances* payable to RHODORA) to Ludlow Griscom, 8 W. King St., Lancaster, Pa., or Museum of Comparative Zoology, Cambridge, Mass.

Entered at Lancaster, Pa. Post Office as Second Class Mail Matter.

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# Rhodora

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## THE CASE FOR POLYGONUM CUSPIDATUM SIEB. & ZUCC.

ALBERT N. STEWARD

A COARSE almost shrubby herb reaching a height of from one to three meters, rather commonly planted in North American gardens and perhaps more often escaped from cultivation, is this remarkable *Polygonum* from eastern Asia which Siebold and Zuccarini named for the characteristic cuspidate form of the leaf blade.<sup>1</sup>

During recent studies in the *Polygonaceae* of eastern Asia the writer has found certain practices in nomenclature which have led some authors to reject this and other well known names without apparent valid reason under either the International Rules of Botanical Nomenclature or the American Code.

Dr. L. H. Bailey has referred to the bibliography accompanying Bot. Mag. t. 6503 as the basis for his use of "*Polygonum Sieboldii* De Vriese."<sup>2</sup> This bibliography appears to be a literal copy of that given by Meisner in DC. Prodr. xiv. 136, which is as follows: "P. Sieboldi hort. nonnull. De Vriese in Nederl. Kruidkund. Archief. 2, p. 254\* et in Jaarb. d. Koninkl. Nederl. Maatschap. van Tuinb. te Leyden 1850, cum ic. Flora 1851, p. 523. Lindl., et Paxt. mag. 1, p. 137 cum fig. Paxt. Fl. Gard. 1852, 1, p. 137, fig. 90." The meaning of the \* following the first reference is not clear. All of the references, however, are to the cultivated form of *P. cuspidatum* Sieb. & Zucc. The name *P. Sieboldii* occurs only in the second of the three references, a photograph of which has been seen through the kindness of Dr. Bailey, and there it is given only as a synonym in a bibliography which is in full as follows:

<sup>1</sup> Siebold & Zuccarini, Fl. Jap. Fam. Nat. Pt. 2, p. 84 [n. 731] (1846).

<sup>2</sup> Bailey, Cyclop. Amer. Hort. 1393, f. 1880 (1901).



## POLYGONUM CUSPIDATUM S. ET Z.

*Polygonum cuspidatum* Sieb. & Zucc. Fl. Jap. fam. nat. in Act. Monoc. IV. Bd. 1844-1846. p. 208.

*Polygonum pictum* Sieb. Cat. des pl. du Japon, cf. Jaarboek der Koninkl. Nederl. Maatsch. tot Aanam. van den Tuinbouw. 1848. p. 44.

*Polygonum Sieboldi* Rwdt. in Mss.<sup>1</sup>

The name *P. cuspidatum* Willd., because of which *P. cuspidatum* Sieb. & Zucc. is displaced by Small<sup>2</sup> and following him by Bailey, l. c., occurs, so far as is known to the writer, only as an herbarium name given by Sprengel (Syst. ii. 256) as a synonym for *P. acuminatum* Kunth. The use of the name *P. Sieboldi* hort. by Meisner as a synonym for *P. cuspidatum* Sieb. & Zucc. is preceded (p. 133) by the regular use of *P. Sieboldi* Meisn. for a plant of § *Echinocaulon*.

It has been the practice of a number of botanists to consider a name non-valid for later use if it has previously occurred in print, regardless of whether or not such occurrence was in a form which could be considered proper publication. This procedure may be illustrated by the three examples from the literature of the genus *Polygonum* which are cited below:

1. **Polygonum Zuccarinii** Small.

*Polygonum cuspidatum* Siebold & Zuccarini, Fl. Japon. Fam. Nat. 2: 84 (1846), not Willd.—Small, l. c.

2. **POLYGONUM Sieboldii**, De Vriese (*P. cuspidatum*, Sieb. & Zucc., not Willd. *P. Zuccarinii*, Small).—Bailey, l. c.

3. **Polygonum Portoricense** Bertero.

-----  
*Polygonum densiflorum* Meisner in Mart. Fl. Bras. 5: 13 (1855), not Blume; - - -

*Polygonum Portoricense* Bertero; Meisn. in DC. Prodr. 14: 121 (1856), as synonym.—Small, op. cit. 46.

In the first two examples *P. cuspidatum* Sieb. & Zucc. is thrown down because of Willdenow's herbarium name given only in synonymy by Sprengel. In the third example *P. densiflorum* Meisn. is displaced by *P. portoricense*, an herbarium name given by Meisner as a synonym, because of a supposed *P. densiflorum* Blume. Weatherby has pointed out (RHODORA xxv. 20) that *P. densiflorum* Blume began with an error in Index Kewensis, apparently based on Blume's *P. corymbosum* var. *densiflorum* (Bijd. 534).

Neither the International Rules nor the American Code gives support to such procedures, for (1) Article 50 of the International

<sup>1</sup> De Vriese in Jaarb. Koninkl. Nederl. Maats. Aanmoed. Tuinb. 1849, p. 31 (1850).

<sup>2</sup> Small in Mem. Bot. Col. Coll. i. 158 t. 66 [Monogr. Polygon.] (1895).

Rules states that a name shall not be rejected "because of the existence of an earlier homonym which is universally considered as non-valid" (p. 48) and Article 37 states that "Citation in synonymy or incidental mention of a name is not effective publication." (p. 43). (2) Although Canon 16 of the American Code states that "A name is rejected when preoccupied (homonym). (a) A specific name is a homonym when it has been published for another species under the same generic name,"<sup>1</sup> it is nevertheless true that the names used in the cases just cited above cannot be considered as homonyms under Canon 16 because Canon 12 states that "A name is not published by its citation in synonymy or by incidental mention." (l. c. 171) and one of the examples given presents *Acrostichum Plumieri* Desv. herb. given as a synonym of *A. viscosum* Fée, stating that the former name is not "published" and does not invalidate *A. Plumieri* Fée. Neither *P. cuspidatum* Willd. nor *P. densiflorum* Blume have, then, been "published" according to either the International Rules or the American Code, so *P. cuspidatum* Sieb. & Zucc. and *P. densiflorum* Meisn. should not be displaced because of them.

GRAY HERBARIUM.

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AN EXCEPTIONALLY LARGE *ONOCLEA SENSIBILIS*.—On the 11th of August, 1929, I found on Pine St., Peterborough, New Hampshire, an exceptionally large *Onoclea sensibilis* Linn. that seems worth recording. The plant was in a damp situation and growing out from an Arbor Vitae hedge, which doubtless in part caused the elongation of the fronds. A sterile frond, from the base of the stalk to the tip of the frond, measured  $51\frac{1}{4}$  inches in length, the frond at the broadest part near the base measured  $16\frac{1}{2}$  inches in width, and the leafy expansion from base to tip measured  $19\frac{1}{2}$  inches in length. Several other fronds on the same plant were of nearly or quite the same dimensions.

In Eaton's Ferns of North America it is recorded of the sensitive fern that the tallest fronds are often fully three feet in height. This height is much exceeded by the specimen here cited.—ROBERT TRACY JACKSON, Peterborough, New Hampshire.

[Dr. Jackson's *Onoclea* certainly far exceeds the conventionally published maximum measurements. The recording of his extremely large specimen will,

<sup>1</sup> Bull. Torr. Bot. Club xxxiv. 174 (1907).



naturally, challenge others. As a first record of still larger individuals we may note one in the Club herbarium, from the alluvium of the Penobscot River, with stipe 45 inches tall and leafy expanded frond  $20\frac{3}{4}$  inches long, giving a total length from base of stipe to tip of frond of  $65\frac{3}{4}$  inches (5 feet,  $5\frac{3}{4}$  inches). This frond has a breadth of  $19\frac{1}{2}$  inches, but another frond from the same region with the stipe broken off (consequently disqualified for competition) measures  $23\frac{1}{2}$  inches broad. The fertile fronds of these plants stand exactly 2 feet high. A frond in the Gray Herbarium, collected by the late William Boott "near Boston," has the leafy half  $20\frac{1}{4}$  inches long.—EDS.]

## THE FLORA OF THE ELIZABETH ISLANDS, MASSACHUSETTS

JOHN M. FOGG, JR.

(Continued from page 221)

### PART II. ANNOTATED LIST OF THE VASCULAR FLORA

In the Catalog of Vascular Plants of the Elizabeth Islands which follows several conventions and abbreviations have, for the sake of convenience, been adopted; these are here explained:

NOMENCLATURE. The International Rules of Botanical Nomenclature have been followed.

ELEMENTS IN THE FLORA. The various elements constituting the flora have been differentiated thus:

Indigenous species appear in capital letters.

Introduced species are given in *italics*.

Discredited records are included in brackets.

CITATIONS AND SYNONYMY. Synonyms are given in italics and, in general, are included only when they represent names which have been superseded since the last edition of Gray's Manual (Ed. 7, 1908). Usually, in such cases, a reference is given to the place where the new name was published or its status discussed.

LOCALITIES. The seven main islands are indicated by taking the first three letters of the name of each; thus:

NON: Nonamesset, including Pine Island.

UNC: Uncatena

NAU: Naushon, including Captain's Island, Ram's Head, Monohansett, Buck, East Buck, West Buck and the Weepeckets.

PAS: Pasque.

NAS: Nashawena.

CUT: Cuttyhunk.

PEN: Penikese, including Gull Island.

COLLECTORS. Those who have collected specimens from the islands, or who have reported plants from there, are designated by the use of the surname; this is followed by the serial collection number, where the collector has employed a numbering system, otherwise by the date. A list of the chief collectors is here given in alphabetical order:

Cushman, J. A. (1906)	Northrop, Alice R. (1901, 1903)
Duggar, B. M. (1911)	Pennell, F. W. (1911)
Faxon, C. E. (1875)	Sanford, S. N. F. (1917)
Faxon, Walter (1873)	Simons, Elizabeth A. (1901)
Fernald, M. L. (1927)	Sipe, S. B. (1901)
Hervey, E. W. (no date)	Svenson, H. K. (1926)
Hollick, Arthur (1898)	Taylor, W. R. (1919-1921)
Jordan, David S. (1873)	Weir, "Miss" (1890)
MacRae, Lillian (1904)	Williams, E. F. (1911)
Moore, A. H. (1904)	

Further information concerning these collectors and the distribution of their material may be found in the section on Previous Botanical Work on the Islands (Pages 123-125).

N. B. Serial numbers unprecedented by a name are to be taken as representing material collected by the present writer.

HERBARIA. The following system of initials has been employed to designate the herbaria in which specimens have been seen or to which they are known to have been distributed:

- (A) Academy of Natural Sciences of Philadelphia
- (B) Boston Society of Natural History
- (C) Cornell University
- (G) Gray Herbarium, Harvard University
- (J) Arnold Arboretum, Jamaica Plain, Mass.
- (M) Missouri Botanical Garden
- (N) New England Botanical Club
- (P) University of Pennsylvania
- (U) United States National Museum
- (W) Marine Biological Laboratory, Woods Hole, Mass.
- (Y) New York Botanical Garden
- (o) no specimen seen

## POLYPODIACEAE

POLYPODIUM VIRGINIANUM L. *P. vulgare* of eastern American authors. See Fernald, RHODORA, xxiv. 125 (1922). Rare; seen growing only upon a large boulder in the woods on Naushon. NAU: Hollick (o), 2489 (N); NAS: Northrop (o).

PTERIDIUM AQUILINUM (L.) Kuhn, var. LATIUSCULUM (Desv.) Underwood. *Pteris aquilina* of the Manual. Apparently not common; sandy woods. NON: 2672 (N); NAU: 3329 (P); NAS: Northrop (o).



WOODWARDIA VIRGINICA (L.) Sm. Locally abundant; forms considerable growth around the dune ponds on Nashawena. NAU: *Williams*, July 10, 1911 (N); NAS: *Northrop*, July, 1901 (Y), 1772 (N,P).

W. AREOLATA (L.) Moore. Locally abundant; with *Thelypteris palustris*, var. *pubescens* occupying boggy hollows in open hills. PAS: *Svenson*, Sept. 8, 1926 (N); NAS: *Northrop*, Aug. 1901 (Y), 3492 (N,P); CUT: 2324 (G,N,P,M).

ASPLENIUM PLATYNEURON (L.) Oakes. Reported by Mrs. Northrop from Nashawena; no specimen seen.

ATHYRIUM ANGUSTUM (Willd.) Presl. *Asplenium filix-femina* of American authors in part. See Butters, RHODORA, xix. 190 (1917). Boggy woods and open hillsides. NAS: 3515 (P); CUT: 2535 (N).

A. ANGUSTUM, var. ELATIUS (Link) Butters. RHODORA, xix. 191 (1917). Dry, exposed hillside. PEN: 459 (N,P,W).

THELYPTERIS PALUSTRIS (Salisb.) Schott, var. PUBESCENS (Lawson) Fernald. *Aspidium Thelypteris* of Manual. See Fernald, RHODORA, xxxi. 34 (1929). Common in low, boggy ground and around borders of ponds. NON: 2238 (N); UNC: 2993 (N); NAU: *Sipe*, Aug. 1901 (W); NAS: *Northrop* (o), 2349 (N,P); CUT: *Sanford*, Aug. 15, 1917 (N), 2323 (N); PEN: 460 (N,P,W,M).

T. SIMULATA (Dav.) Nieuwl. *Aspidium simulatum* Dav. See Weatherby, RHODORA, xxi. 174, 178 (1919). Apparently rare on the islands. NAU: *Sipe*, July, 1901 (W); PAS: *Svenson*, Sept. 8, 1926 (N).

T. NOVEBORACENSIS (L.) Nieuwl. *Aspidium noveboracense* (L.) Sw. Moist woodland. NON: 2907 (G,N,P,M,C); NAS: *Northrop* (o), 3514 (P).

T. SPINULOSA (O. F. Müller) Nieuwl. *Aspidium spinulosum* (O. F. Müller) Sw. Reported by Mrs. Northrop from Nashawena; no specimen seen.

DENNSTAEDTIA PUNCTILOBULA (Michx.) Moore. *Dicksonia punctilobula* (Michx.) Gray. Rocky, open hillsides. NAS: *Northrop* (o), 3509 (P); CUT: 2534 (N,P); PEN: 461 (N,P,W,M).

ONOCLEA SENSIBILIS L. Apparently not abundant. NAS: *Northrop* (o); CUT: *Sanford*, Aug. 15, 1917 (N).

### OSMUNDACEAE

OSMUNDA REGALIS L., var. SPECTABILIS (Willd.) Gray. Occasional in open bogs. NAS: *Northrop* (o), 1777 (P).

O. CINNAMOMEA L. Bogs and wet hollows. NON: 2881 (N); UNC: 3029 (N); NAS: *Northrop* (o), 3513 (P); CUT: 3450 (P).

### OPHIOGLOSSACEAE

OPHIOGLOSSUM VULGATUM L. Found only in a sandy field at the east end of Cuttyhunk, near Cuttyhunk Pond. NAS: *Northrop* (o); CUT: 3582 (N,P).



[BOTRYCHUM MATRICARIAE (Schrank) Spreng. is reported by Mrs. Northrop for Nashawena. This may refer to *B. dissectum* Spreng. or one of its allies, but in the absence of herbarium material it seems best to disregard the record entirely.]

### EQUISETACEAE

EQUISETUM ARVENSE L. Seen only in a boggy clearing in the woods at the east end of Naushon. NAU: 701 (P,W).

### LYCOPODIACEAE

LYCOPODIUM INUNDATUM L., var. BIGELOVII Tuckerm. Peaty margins of ponds. NON: 3381 (N); NAU: 3865 (P).

### ISOETACEAE

ISOETES ENGELMANNI A. Br. A single sheet of this species collected on Nashawena by C. E. Faxon, but bearing no date, is in the Gray Herbarium.

### PINACEAE

PINUS STROBUS L. Reported by Mrs. Northrop from Nashawena, where probably introduced; no specimen seen.

P. RIGIDA Mill. A small group of these trees grows at the extreme east end of Naushon near the West Gutter. Seen nowhere else, although perhaps more common. NAU: 3425 (N,P).

P. sylvestris L. Scotch Pine has been introduced on several of the islands but seems nowhere to be spreading. NAU: 3871 (N); NAS: Northrop (o), 3482 (P); PEN: 462 (W).

Larix decidua Mill. Planted at several localities along the north shore of Naushon. NAU: 3870 (N,P,M,C).

Picea Abies (L.) Karst. P. excelsa Link. This and the next two have been planted extensively along the north shore of Naushon. NAU: 3692 (J,P).

P. glauca Voss. P. canadensis B. S. P. NAU: 3690 (J,P), 3691 (J,P), 3869 (J,N).

P. pungens Engelm. NAU: 3868 (J,P).

CHAMAECYPARIS THYOIDES (L.) B. S. P. Of infrequent occurrence on the islands, although plentiful around a large pond near Tarpaulin Cove on Naushon. NAU: Williams, July 10, 1911 (N), 3884 (P,M,C).

JUNIPERUS COMMUNIS L., var. DEPRESSA Pursh. Collected only on the north shore of Naushon, where it may possibly have been introduced. NAU: 3872 (N,P).

J. VIRGINIANA L. Plentiful in the woods near the East Gutter on Nonamasset; not seen elsewhere. NON: 2668 (N, P); NAS: Northrop (o).

### TYPHACEAE

TYPHA LATIFOLIA L. Swamps and pond borders. NON: 2675 (N); NAS: Northrop (o); PEN: 463 (N,W).

*T. ANGUSTIFOLIA* L. Mostly in brackish areas near the shore. NON: 3165 (N); NAU: 3887 (P); NAS: *Northrop* (o), 1766 (P).

### SPARGANIACEAE

*SPARGANIUM EURYCARPUM* Engelm. Found at two stations; both of them swampy hollows in woods at east end of Naushon. NAU: 3153 (N,P), 3678 (P,M).

*S. ANDROCLADUM* (Engelm.) Morong. *S. lucidum* Fernald & Eames. See Fernald, RHODORA, xxiv. 27 (1922). Growing in swampy area at east end of Naushon near Hadley Harbor. NAU: 2469 (N,P).

*S. AMERICANUM* Nutt. Including var. *androcladum* of the Manual. Swampy woods and pond holes; rather common. NON: 2904 (N,P); UNC: 3015 (N,P), 3113 (P); NAU: 2382 (P,C), 2383 (N,P,M); NAS: 3527 (N,P,M).

### NAJADACEAE

*POTAMOGETON OAKESIANUS* Robbins. In a small pool bordered by *Decodon verticillatus* along the north shore of Naushon, near the east end. NAU: 3867 (N,P,M).

*P. PULCHER* Tuckerm. The commonest Pondweed on the islands; met with frequently in the small pond holes, where it often continues to grow upon the mud after the ponds become dry in late summer. This species produces fruit rather abundantly. UNC: 2997 (G,N,P), 3013 (P,M); NAU: 711 (P); PAS: 710 (P,M); NAS: *Faxon*, C. E., no date (G), 3505 (N).

*P. BUPLEUROIDES* Fernald. Found growing abundantly in Gosnold or West End Pond on Cuttyhunk on July 15, 1925. This pond, formerly fresh, had evidently been inundated by the sea the preceding winter; it has remained brackish ever since. CUT: 1001 (P,W).

[*P. PUSILLUS* L. is reported by Mrs. Northrop for Nashawena but no specimen has been seen. Inasmuch as *P. pusillus* has been a source of considerable confusion and there is no way of deciding the correct application of this name without material this record can not be allowed.]

*P. DIVERSIFOLIUS* Raf. *P. hybridus* of the Manual, in part. Collected only from the sandy borders of the dune ponds on Nashawena, but probably more widespread. NAS: 1083 (P,W), 1775 (N,P).

*P. PECTINATUS* L. Abundant in a somewhat brackish pond along the south shore of Nonamesset; should be found elsewhere. NON: 2875 (N,P).

*RUPPIA MARITIMA* L., var. *LONGIPES* Hagström. See Fernald & Wiegand, RHODORA, xvi. 125 (1914). NON: 2246 (N,P,M,C), 2876 (N); NAU: *Pennell* 3151 (W); CUT: 2333 (G,N,P,M,C).

All of the material of *R. maritima* with long podogynes (1-6 cm.) seems to have, at least in maturity, peduncles which are well over 3 cm. in length and which are often much longer and usually spiralled.



If var. *rostrata* Agardh, with mature peduncles 0.5–3 cm. long, occurs on these islands it has still to be collected.

*R. MARITIMA* L., var. *SUBCAPITATA* Fernald & Wiegand. *RHODORA*, xvi. 126 (1914). NON: 2251 (N,P); NAU: *Duggar*, July, 1911 (G); *Pennell* 3152 (P,W); PAS: 712 (N,P,W).

This variety with very short podogynes (2–6 mm.) was originally described from material collected on Naushon. Its range has since been extended from Quebec and Prince Edward Island to Block Island, Rhode Island.

*ZOSTERA MARINA* L. Frequent in the shallow coves and small tidal streams. NON: 2285 (G,N,P); NAS: *Northrop* (o); PEN: 464 (W), 1762 (N,P).

Material collected in Sheep Pen Harbor on Nonamesset and from near the landing on Penikese is remarkable for the copiousness with which it produces flowers and fruits; this fact has been observed without fail for several seasons.

### JUNCAGINACEAE

*TRIGLOCHIN MARITIMA* L. Apparently rare on the Elizabeth Islands, although common in brackish marshes on the adjacent mainland. NAS: *Northrop*, Aug. 1901 (Y).

### ALISMACEAE

*SAGITTARIA LATIFOLIA* Willd. Not common; swampy hollow in woods near Tarpaulin Cove. NAU: 2384 (N).

*S. LATIFOLIA* Willd., forma *HASTATA* (Pursh) Robinson. Form with very narrow, acute leaves. UNC: 3003 (N).

### HYDROCHARITACEAE

*VALLISNERIA AMERICANA* Michx. *V. spiralis* of Manual; see Fernald, *RHODORA*, xx. 108 (1918). Abundant in "Sheep Pond" near west end of Cuttyhunk. CUT: 2532 (G,N,P,M).

### GRAMINEAE

*ANDROPOGON SCOPARIUS* Michx., var. *FREQUENS* Hubbard. See *RHODORA*, xix. 103 (1917). Abundant everywhere on open hills and sandy lowlands. NON: 2585 (P,C), 2911 (N,P,M); UNC: 3109 (N), NAU: 3924 (N,P,M); PAS: *Svenson*, Sept. 8, 1926 (N), 3753 (P); CUT: *Sanford*, Aug. 15, 1917 (N).

*A. SCOPARIUS* Michx., var. *POLYCLADOS* Scribn. & Ball. *A. littoralis* Nash. *A. scoparius*, var. *littoralis* (Nash) Hitchc. See *RHODORA*, xix. 103 (1917). Collected on the white sand beach bordering West End Pond on Naushon. NAU: 2940 (G,N,P).

*A. GLOMERATUS* (Walt.) B. S. P. Seen only in a low brackish marsh near the east end of Naushon; probably more abundant. NAU: 3333 (N,P,M).

*A. VIRGINICUS* L. Open grassland and pond borders: material collected on Nonamesset has conspicuously hairy lower leaves and sheaths. NON: 3915 (N,P,M,C); UNC: 3118 (N).

*A. FURCATUS* Muhl. Sandy fields and clearings; not common. UNC: 3011 (N,P); NAU: 2603 (N,P).

*Digitaria sanguinalis* (L.) Scop. Disturbed sandy areas. UNC: 3107 (P,M), 3053 (N,P); PEN: *Jordan* (o).

*PASPALUM SETACEUM* Michx. Found growing abundantly on the exposed grassy slopes at the extreme east end of Nashawena. NAS: 3549 (N,P).

This grass, rare in New England, is known elsewhere in Massachusetts only from Nantucket. See Weatherby, RHODORA, xxx. 133 (1928).

*P. PUBESCENS* Muhl. Including *P. Muhlenbergii* Nash. See Weatherby, RHODORA, xxx. 134 (1928). Abundant everywhere on open grassy hillsides. UNC: 2967 (N,P), 3642 (P); NAU: 2599 (N), 3885 (P,C); CUT: *Sanford*, Aug. 15, 1917 (N), 2538 (N,P,M).

*PANICUM CAPILLARE* L. Seen growing only along border of salt marsh at west end of Nonamesset. NON: 2899 (N,P,M).

*P. DICHOTOMIFLORUM* Michx. Occasional in moist grassy hollows. NON: 3197 (N,P).

*P. VIRGATUM* L., var. *SPISSUM* Linder. RHODORA, xxiv. 14 (1922). This variety with densely tufted culms seems entirely to replace the species on the Elizabeth Islands. Common in open grassland, wet hollows and sandy clearings. NON: 2632 (P); UNC: 3030 (N,P,M); NAU: 3908 (N,P); PAS: 3763 (P,C), 3786 (N,P,M); NAS: 2360 (N,P); PEN: 1093 (P,W).

*P. LONGIFOLIUM* Torr. This species, known elsewhere in Massachusetts only from Marion, Plymouth County, was collected in the peaty and boggy hollows at the east end of Pasque on August 28, 1928. See Fogg, RHODORA, xxxi. 39 (1929). PAS: 3787 (N,P,W).

*P. DEPAUPERATUM* Muhl., var. *PSILOPHYLLUM* Fernald. RHODORA, xxiii. 193 (1921). This species is represented on the islands only by the smooth-leaved variety. Grassy and sandy slopes. NON: 2579 (N); NAU: 2491 (N,P), 3319 (P).

*P. DICHOTOMUM* L. Mostly in open sandy woods. NON: 2650 (N), 3423 (P,M); NAU: 2478 (N,W), 2483 (P), 3906 (N,P,C).

*P. LINDHEIMERI* Nash, var. *FASCICULATUM* (Torr.) Fernald. *P. P. huachucae* Ashe. *P. huachucae*, var. *silvicola* Hitchc. & Chase. *P. tennesseense* Ashe. See Fernald, RHODORA, xxiii. 223 (1921). NON: 2295 (N,P,W), 2301 (W,C), 2589 (P), 2633 (P,M), 2648 (P,W), 2660 (N), 3176 (P), 3374 (P,U), 3375 (P), 3376 (P,U), 3420 (P,U); NAU: 2931 (N,P), 3903 (P,U); CUT: 2266 (N,P,M), 3433 (P,U,C), 3456 (P,U); PEN: 478 (N,P,W), 3405 (P).



This is the most ubiquitous and the most variable *Panicum* on the islands. Of the specimens cited Mrs. Agnes Chase, who has kindly examined some of the material from the Elizabeths, has designated no. 3374 as *P. implicatum* Scribn., no. 3420 as typical *P. huachucae* Ashe, and nos. 3376, 3433, 3456 and 3903 as *P. huachucae*, var. *silvicola* Hitchc. & Chase. In speaking of no. 3420 Mrs. Chase says, "The pubescence on upper surface of blades varies from very scant or almost wanting to fairly copious." Thus, degree of pubescence varies, not only as between separate plants, but in different parts of the same plant and, in view of the many intermediates which make it impossible here to draw sharp specific or even varietal lines, it seems best to follow the more conservative treatment of this species proposed by Fernald, l. c. p. 226. Viewed in this light, the Elizabeth Islands material with spikelets 1.5–2.1 mm. long and leaf-blades short-pilose to glabrous above, falls into the variety *fasciculatum*.

*P. MERIDIONALE* Ashe. Abundant on exposed grassy slopes. Often very slender with leaves not over 1.5 mm. wide. NON: 2582 (P); NAU: *Taylor*, July 24, 1917 (P); NAS: 2452 (N), 3550 (N,P); CUT: 2537 (N,P); PEN: 3404 (P).

*P. ALBEMARLENSE* Ashe. This southern species, found abundantly in recent years on the "Middle" Cape, is known from two stations on the Elizabeth Islands, both of them exposed sandy areas. UNC: 3082 (N,P); CUT: 2264 (N,P,W).

*P. ORICOLA* Hitchc. & Chase. Sandy woods, hillsides and pond borders. NAU: 718 (W), 2492 (P), 2714 (N), 3681 (P); NAS: 2359 (N), 3466 (P); PEN: 479 (P,W).

The lines between this and *P. meridionale* are not always sharp; in fact, the two behave more like varieties of one polymorphic species. Differences in size of spikelets are trivial, pubescence cannot be relied upon, and habit varies with the situation in which these plants grow. To be sure, there is a well marked *meridionale* extreme and an equally characteristic *oricola* one, but between them an almost complete series of integrations.

*P. COMMONSIANUM* Ashe. Met with only on an open sandy bank along the north shore of Naushon, west of Kettle Cove. NAU: 3875 (N,P,M,C).

*P. SPHAEROCARPON* Ell. Occasional on open grassy downs. NON: 2647 (N,W), 3419 (P); NAS: 3556 (N).

*P. CLANDESTINUM* L. Sandy woods and clearings; not common. UNC: 3041 (N); NAU: 3148 (N,P).

*Echinochloa Crusgalli* (L.) Beauv. A weed near cultivated areas. UNC: 3063 (N); NAS: *Northrop* (o); PEN: 1092 (P, W).

*E. WALTERI* (Pursh) Nash. Moist, usually brackish, situations. NON: 3188 (N); UNC: 2992 (N); NAU: 3156 (C), 3888 (P,M,C).

*SETARIA GENICULATA* (Lam.) Beauv. See Hitchc. Contr. U. S. Nat. Herb. xxii. 168 (1920). Open grassland and around borders of brackish areas. NON: 2695 (N,P); UNC: 3033 (N,P), 3103 (N,P).

This species is in urgent need of further study, for even a casual examination of a large series of specimens is sufficient to indicate that our perennial Foxtail of the salt marshes of New England is distinct from the far-ranging southern plant which occurs in tropical and subtropical America.

*S. glauca* (L.) Beauv. See RHODORA, xxxi. 109, 110 (1929). Disturbed sandy area near beach. UNC: 3098 (N).

*S. viridis* (L.) Beauv. Reported by Jordan from Penikese; no specimen.

*CENCHRUS PAUCIFLORUS* Benth. *C. carolinianus* of Manual. See Chase, Contrib. U. S. Nat. Herb., xxii. 67 (1920). Seen only in sandy field near east end of Pasque. PAS: 3766 (N,P,M,C).

[*C. TRIBULOIDES* L., reported by Mrs. Northrop from Nashawena, probably refers to the preceding. *C. tribuloides* is unknown east of Long Island.]

*LEERSIA ORYZOIDES* (L.) Sw., forma *INCLUSA* (Wiesb.) Fogg. See RHODORA, xxx. 81 (1928). The only material of the Rice Cut-grass seen on the islands grew on the sandy margin of Mary's Lake and had the panicles enclosed within the upper leaf-sheaths. NAU: 3135 (G,N,P,M).

*Phalaris canariensis* L. Sandy area near landing at east end of Pasque. PAS: 1794 (P).

*Anthoxanthum odoratum* L. Everywhere in open grassland. NON: 2250 (N,P,M); NAU: 3315 (P,C); PEN: 468 (N,P,W,M).

*STIPA AVENACEA* L. Apparently rare and local. NAS: Northrop (o), 3560 (P).

*ARISTIDA PURPURASCENS* Poir. Abundant on exposed hillsides, especially on Naushon. NAU: 1010 (P,W), 3140 (N), 3683 (P).

*Phleum pratense* L. Seemingly only on outer islands, where abundant on open slopes. CUT: 2280 (N); PEN: 480 (W).

*AGROSTIS STOLONIFERA* L. *A. alba* of most American authors, not L. See Malte, Canada Dept. Mines, Bull. no. 50. (1926). Grassland and sandy fields. NON: 2653 (N), 3418 (P); PAS: 3772 (P); NAS: Pennell 2914 (P); PEN: 3390 (N,P).

*A. STOLONIFERA* L., var. *COMPACTA* Hartm. *A. alba*, var. *maritima* (Lam.) Mey. See Malte, l. c. Beaches and brackish situations. NON: 2721 (P), 3417 (N); NAU: 2713 (N); PEN: 3397 (N,P,M,C).

*A. TENUIS* Sibth. *A. vulgaris* With. *A. alba*, var. *vulgaris* (With.) Thurb. Doubtfully *A. capillaris* L. See Malte, l. c. Dry hillsides and hollows. NON: 3352 (P); PEN: 466 (P,W), 3391 (P).



A. HYEMALIS (Walt.) B. S. P. Sandy woods; occasional. NAU: Pennell 3124 (W,P), 3918 (N).

A. PERENNANS (Walt.) Tuckerm. Sandy woods and clearings; more frequent than the preceding. NAU: 2679 (P), 3881 (N,P), 3904 (N).

CALAMAGROSTIS CANADENSIS (Michx.) Beauv. Wet hollows and borders of ponds. NON: 3359 (N); NAS: 1007 (P,W), Williams, July 10, 1911 (N); CUT: 3453 (P,M).

C. CINNOIDES (Muhl.) Barton. Seen only in a boggy thicket near Job's Neck. NAU: 2604 (N,P).

AMMOPHILA BREVILIGULATA Fernald. *A. arenaria* of Manual. See Fernald, RHODORA, xxii. 70 (1920). Cobble and sandy beaches. NON: 2698 (N,P,M,C); UNC: 3058 (N); PEN: 467 (W).

*Holcus lanatus* L. Ubiquitous in grassland and sandy fields and clearings. NON: 2291 (N,P); NAU: 2709 (N,P); NAS: Northrop (o); CUT: Taylor 2408 (P), 3455 (P,C); PEN: 477 (N,P,W,M).

DESCHAMPSIA FLEXUOSA (L.) Trin. Dry woods near Tarpaulin Cove. NAU: 1009 (N,P,W).

*Avena sativa* L. Sandy soil near cultivated area. PEN: 469 (W).

DANTHONIA SPICATA (L.) Beauv. Abundant on dry knolls and open clearings. NON: 2249 (N,P), 2658 (P); PEN: 473 (P,W).

Several trends are evident in material of this species from these islands and elsewhere in eastern North America. Specimens collected from the beach near French Watering Place, Naushon, for example, have lemmas with the aristate teeth of *D. sericea*, although lacking the pubescence of that species. This material can be satisfactorily referred to nothing included in our existing treatments of the genus. It is hoped that the intensive study of our American material already embarked upon by the writer may lead to a better understanding of these puzzling forms. A large series of collections is being held for critical examination and comparison with types, but the preceding may be referred to as fairly typical of *D. spicata* as it is commonly understood.

SPARTINA MICHAUXIANA Hitchc. Boggy hollows and pond margins, often near shore. NON: 2908 (N); NAU: 2380 (N); NAS: 2341 (N,P); CUT: 3440 (P).

S. ALTERNIFLORA Loisel., var. PILOSA (Merrill) Fernald. *S. glabra*, var. *pilosa* Merrill. See Fernald, RHODORA, xviii. 179 (1916). Brackish marshes and upper borders of beaches. NON: 2896 (P), 2909 (P), 2910 (N,P,M); UNC: 3095 (N,P); NAU: 3685 (N); PAS: Svenson, Sept. 8, 1926 (N); PEN: 482 (P,W).

S. PATENS (Ait.) Muhl. Brackish marshes; fairly common. NON: 2292 (N,P,M,C); NAS: Northrop (o); PEN: 483 (P,W).

S. PATENS (Ait.) Muhl., var. JUNCEA (Michx.) Hitchc. Seen grow-

ing only on sandy upper beach on Uncatena. NON: *Cushman* 126 (B); UNC: 3049 (N).

*S. PATENS* (Ait.) Muhl., var. *CAESPITOSA* (A. A. Eaton) Hitchc. This variety, characterized by its densely tufted habit, was collected in a brackish marsh near Tarpaulin Cove, where it formed a dense turf. NAU: 2377 (N,P).

*DIPLACHNE MARITIMA* Bickn. Bull. Torr. Bot. Cl. xxxv. 195 (1908.) Found only along a brackish ditch near Tarpaulin Cove. NAU: 3889 (N,P,M).

*PHRAGMITES COMMUNIS* Trin. Occasional in swampy situations. NAU: 1803 (N,P,W), 2608 (P); NAS: *W. Faxon*, Aug. 1873 (G), *Northrop*, Aug. 1901 (Y).

*TRIPLASIS PURPUREA* (Walt.) Chapm. Abundant on beaches and low sandy stretches. NON: 2871 (N,P,W,M,C); UNC: 3009 (N,P,M); NAU: 2510 (N), 2732 (P); PAS: 3754 (P).

*ERAGROSTIS PECTINACEA* (Michx.) Steud. Common everywhere on open grassland and in sandy clearings, except on the outer islands. NON: 2580 (P,W), 3167 (N); UNC: 3651 (P); NAU: 3919 (N,P,C); PAS: 3765 (P,M); NAS: *Northrop*, Aug. 1901 (Y).

An intensive search has failed completely to reveal var. *spectabilis* Gray with smooth sheaths, which is abundant on Martha's Vineyard and Nantucket.

*DISTICHLIS SPICATA* (L.) Greene. With *Spartina patens* in brackish marshes. NON: 2901 (P), 3208 (N); UNC: 2694 (P), 3097 (N); PAS: 3737 (P,M); PEN: 1091 (P,W).

*Dactylis glomerata* L. Sandy soil near cultivated area on Penikese; otherwise not seen, although probably more general. PEN: 472 (N,P,W,M).

*Poa annua* L. Not common. Disturbed sandy areas on two of the islands. NAU: 3311 (P); PEN: 3389 (P).

[*P. SEROTINA* Ehrh. Reported by Jordan from Penikese. This may refer to *P. palustris* L. (*P. triflora* Gilib.), but, in the absence of material, it seems best to disregard the record.]

*P. PRATENSIS* L. Fairly common on open downs. NON: 3249 (N,P), 3351 (P); PEN: 481 (P,W), 3388 (N,P,M).

*GLYCERIA OBTUSA* (Muhl.) Trin. Pond borders and moist hollows. NAU: 2934 (N,P); NAS: *Northrop*, Aug. 1901 (Y), 2348 (N,P,C).

*G. CANADENSIS* (Michx.) Trin. Border of *Decodon* swamp near Tarpaulin Cove. NAU: 2396 (N,P).

*G. STRIATA* (Lam.) Hitchc. *G. nervata* (Willd.) Trin. Boggy woods; apparently local. NAU: 2479 (N).

*G. PALLIDA* (Torr.) Trin. Swampy woods and wet hollows. NON: 2575 (N,P), 3358 (P), 3371 (P); NAU: 2470 (P); NAS: 3525 (N,P,M, C).

*G. ACUTIFLORA* Torr. Found almost completely submerged in several small ponds on Nonamesset and one on Nashawena. NON: 2243 (G,N), 3344 (P), 3380 (P,C); NAS: 3524 (N,P,M).



[PUCCINELLIA MARITIMA (Huds.) Parl. Reported by Jordan from Penikese but probably refers to the following which, though unknown from Penikese, grows on the neighboring island of Cuttyhunk.]

P. PAUPERCULA (Holm) Fernald & Weatherby, var. ALASKANA (Scribn. & Merr.) Fernald & Weatherby. RHODORA, xviii. 18 (1916). Abundant on mud flats bordering Cuttyhunk Pond. CUT: 3572 (N,P,W,M,C).

*Festuca Myuros* L. Edge of sandy road leading to Tarpaulin Cove. NAU: 2509 (N,P).

F. OCTOFLORA Walt. Apparently not general. NON: Pennell 2847 (W).

F. RUBRA L. One of the commonest grasses on the islands. Gravel banks, borders of beaches, open downs, sandy clearings, etc. NON: 2845 (W,P), 3349 (P), 3350 (N,P), 3370 (P), 3416 (P); NAU: 2712 (N,P,M), 3877 (N,P,C); CUT: 2279 (N,P); PEN: 476 (N,P,W).

Extremely variable as to habit, texture of foliage and degree of glaucousness.

F. OVINA L. Reported by Mrs. Northrop from Nashawena and by Jordan from Penikese. No material seen, but this record is allowed to stand for the present.

F. elatior L. Found only on Penikese, where abundant in certain areas. PEN: 475 (P,W).

*Bromus secalinus* L. Growing in dry sandy ground along east shore of Penikese. PEN: 470 (W).

B. hordeaceus L. Disturbed sandy areas on Nonamesset and along path near landing on Penikese. NON: Pennell 2839 (W), 3304 (N,P), 3347 (P,M,C); PEN: 3412 (N,P).

*Agropyron repens* L. Apparently not abundant except on outer islands, where it takes possession of large sandy areas. CUT: 2278 (N,P,M); PEN: 465 (W), 3387 (N,P).

ELYMUS VIRGINICUS L. Collected only on Gull Island, Penikese, where the plant is unusually robust. Reported by Jordan from Penikese proper, but not seen there recently. PEN: 474 (N,P,W).

E. VIRGINICUS L., var. HALOPHILUS (Bickn.) Wiegand. RHODORA, xx. 83 (1918). Dry sandy banks facing the sea at west end of Uncatena. UNC: 3119 (N), 3648 (P).

### CYPERACEAE

CYPERUS DIANDRUS Torr. Wet depressions and pond borders. NON: 3198 (N); UNC: 3021 (N); NAU: 2737 (N,P,W).

C. RIVULARIS Kunth. Seen only growing with the preceding on grassy bank bordering French Watering Place. NAU: 2739 (N); NAS: Northrop (o).

C. FILICINUS Vahl. C. Nuttallii Eddy. Borders of fresh ponds and low brackish areas. NON: 2700 (N,P), 2889 (P); UNC: 3007 (N,P), 3048 (P); NAU: Cushman 313 (B), 2725 (N), 3864 (P).

*C. DENTATUS* Torr. Not common; sandy margins of several ponds on Naushon. NAU: 2467 (C), 2920 (P,M), 2935 (N,P,M).

*C. ERYTHRORHIZOS* Muhl. Reported by Mrs. Northrop for Nashawena; no specimen seen.

*C. FERAX* Rich. Borders of brackish marshes and low swales; not common. NON: 2897 (N); NAU: 2369 (G,P,C), 3155 (N,P,W,M).

*C. STRIGOSUS* L. Of rather frequent occurrence in pond-holes, borders of salt marshes, upper beaches, and moist clearings. NON: 2665 (P); UNC: 2982 (P), 2991 (N,P), 3057 (W); PAS: 3781 (P).

*C. STRIGOSUS* L., var. *ROBUSTIOR* Kunth. Moist depression in open hills. UNC: 3083 (N,P,W).

*C. STRIGOSUS* L., var. *COMPOSITUS* Britton. Small pond-hole at west end of island. UNC: 3020 (N,P,W).

*C. FILICULMIS* Vahl, var. *MACILENTUS* Fernald. Dry open ground and sandy clearings everywhere. NON: 2587 (N); UNC: 3061 (N); NAU: 742 (P,W); PAS: 3769 (N); NAS: *Northrop*, as "*C. filiculmis*" (o), 3553 (P); CUT: *Sanford*, Aug. 15, 1917 (N), 2265 (P,M).

*DULICHIMUM ARUNDINACEUM* (L.) Britton. Swampy hollows. NAU: 745 (W); PAS: 744 (W); NAS: *Northrop*, Aug. 1901 (Y), 2343 (N,P); CUT: *Sanford*, Aug. 15, 1917 (N).

*ELEOCHARIS PARVULA* (R. & S.) Link. *Scirpus nanus* Spreng. See Svenson, RHODORA, xxxi. 168 (1929). Brackish ponds and salt marshes. NON: 2287 (P,M), 2708 (N,P); UNC: 3050 (P); NAU: 1804 (N); NAS: *Pennell* 2924 (W).

*E. OBTUSA* (Willd.) Schultes. Moist hollows and pond margins. NON: 2574 (P,M), 3204 (N,P); NAS: *Northrop*, Aug. 1901, labelled "*C. ovata*" (Y); CUT: *Sanford*, Aug. 15, 1917 (N); PEN: 485 (W).

*E. ACICULARIS* (L.) R. & S. Peaty and sandy pond borders: apparently not common. NON: 2913 (N,P); NAU: 2507 (N,P,M); PEN: *Jordan* (o).

*E. SMALLII* Britton. See Fernald & Brackett, RHODORA, xxxi. 57-77 (1929). Peaty and boggy pond margins and low swampy areas. UNC: 3002 (N,P); NAS: 3498 (N,P,M,C); CUT: 746 (P,W); PEN: 849 (P,W).

*E. UNIGLUMIS* (Link.) Schultes. See Fernald & Brackett, l. c. 71. This essentially boreal sedge is near the extreme southern limit of its range on Cuttyhunk where, on August 11, 1927, it was collected from the peaty margin of Sheep Pond. CUT: 2526 (N).

*E. UNIGLUMIS* (Link) Schultes, var. *HALOPHILA* Fernald & Brackett, l. c. 72. Sandy or peaty margins of brackish ponds; rather frequent. NON: 2703 (N,P,M,C), 2912 (P,M); NAU: 1028 (N,P,W), 3316 (P); NAS: *Williams*, July 10, 1911 (N), 1029 (P,W).

*E. ROSTELLATA* Torr. Apparently infrequent. Seen only from a low brackish marsh along the north shore of Naushon near Kettle Cove. NAU: 3878 (N,P,M,C).

*FIMBRISTYLIS AUTUMNALIS* (L.) R. & S. *F. Frankii* Steud. See Blake, RHODORA, xx. 25 (1918). Grassy pond borders. NON: 3199 (N,P); NAU: 2738 (N,P).

*SCIRPUS AMERICANUS* Pers. Everywhere bordering ponds, both fresh and saline. NON: 2239 (P), 2888 (M); UNC: 2998 (P), 3025 (N); NAU: 2375 (P), 2921 (N), 2923 (P), 2723 (P,C); NAS: *Northrop*, Aug. 1901 (Y), *Pennell* 2910 (W), *Williams*, July 10, 1911 (N), 2355 (P,M); CUT: *Sanford*, Aug. 15, 1917 (N), 2277 (P,M); PEN: 486 (P,W).

*S. OLNEYI* Gray. Seen growing at edge of salt marsh along south shore of Nonamesset; probably more general. NON: 2898 (N,P); NAS: *Northrop*, Aug. 1901 (Y).

*S. VALIDUS* Vahl. Common in wet depressions and swampy borders of ponds. NON: 2244 (N,P); UNC: 2999 (N,P); NAU: 1033 (P,W); NAS: *Northrop*, as "*S. lacustris*" (o); CUT: 3573 (P); PEN: 488 (N,P,W,M).

*S. ROBUSTUS* Pursh. Not common. NAS: *Northrop*, Aug. 1901 (Y)

*S. CAMPESTRIS* Britton, var. *PALUDOSUS* (A. Nelson) Fernald. Occasional in brackish marshes. NON: 2288 (P,M), 3209 (N,P); PEN: 487 (N,P,W,M,C).

*S. CAMPESTRIS* Britton, var. *NOVAE-ANGLIAE* (Britton) Fernald. Collected only from swampy clearing in woods near Job's Neck. NAU: 3154 (N,P).

*S. CYPERINUS* (L.) Kunth. Everywhere in wet depressions and around ponds. NON: 2566 (N,P), 3169 (P,M); UNC: 2990 (N,P); NAU: 2922 (N,P,M), 3149 (P); PAS: *Svenson*, Sept. 8, 1926 (N), 3791 (C); NAS: *Northrop* (o), 2340 (N,P); CUT: 2308 (N,P).

*S. CYPERINUS* (L.) Kunth, var. *PELIUS* Fernald. Found only along the edge of a swamp near Tarpaulin Cove. NAU: 2395 (N).

*ERIOPHORUM TENELLUM* Nutt. Occasional in boggy situations. NAU: *Pennell* 2905 (P); NAS: *Northrop*, Aug. 1901, labelled "*E. gracile*" (Y); CUT: 1030 (N).

*E. VIRGINICUM* L. Rather frequent in open bogs and wet peaty hollows. NON: 2879 (N,P,M), 3180 (P); PAS: 3792 (N,P), *Svenson*, Sept. 8, 1926 (N); NAS: *Northrop* (o), 3497 (P); CUT: *Sanford*, Aug. 15, 1917 (N), 1014 (P,W), 2517 (P,C).

*RYNCHOSPORA FUSCA* (L.) Ait. f. Apparently rare; seen only in a low, boggy hollow near Tarpaulin Cove. NAU: 2512 (P,W).

*R. ALBA* (L.) Vahl. Open bogs and peaty depressions; seemingly not abundant, although plentiful in an extensive bog at the west end of Cuttyhunk. NAS: *Northrop*, Aug. 1901 (Y); CUT: 2319 (N,P).

*R. CAPITELLATA* (Michx.) Vahl. *R. glomerata* of Manual in part. See Blake, *RHODORA*, xx. 25 (1918). Much more common than the preceding. Bogs, pond-holes and pond borders. NON: 2644 (N); UNC: 3014 (N,P), 3116 (P,M,C); NAU: 2393 (N); PAS: 1782 (N,P); NAS: 3471 (P).

*MARISCUS MARISCOIDES* (Muhl.) Kuntze. *Cladium mariscoides* Torr. See *RHODORA*, xxv. 49 (1923). Mostly on sandy beaches bordering ponds. NAU: 2924 (N); PAS: 3776 (P); NAS: *Pennell* 2917 (W), 2339 (N); CUT: 740 (P,W).



CAREX SCOPARIA Schkuhr. Not common on the Elizabeth Islands. Dryish border of small pond. NON: 3384 (N,P,M,C); PEN: Jordan (o).

C. SCOPARIA Schkuhr, var. SUBTURBINATA Fernald & Wiegand. RHODORA xiv. 115 (1912). Seen around margin of *Decodon* swamp near Tarpaulin Cove. NAU: 2399 (N).

C. LONGII Mackenzie. *C. albolutescens* of Manual. See Mackenzie, Bull. Torrey Bot. Club, xlix. 372 (1922). Frequent in open grassland. UNC: 3078 (N), 3099 (P); NAS: 3469 (P); CUT: Sanford, Aug. 15, 1917 (N), 1013 (N,P,W,M); PEN: 848 (N,P,W).

C. STRAMINEA Willd. This is the plant with obovate perigynia selected by Mackenzie as true *C. straminea*; see Bull. Torrey Bot. Club, xlii. 603 (1915). It has been found growing only on the edge of a bog at the west end of Cuttyhunk. CUT: 2327 (N,P).

C. HORMATHODES Fernald. Moist, occasionally brackish, situations as well as dry slopes near shores. NON: 2297 (N); UNC: 3644 (P); NAS: Williams, July 10, 1911 (N); CUT: 726 (P,W); PEN: 1754 (N,P).

C. SILICEA Olney. Dry, sandy banks and hillsides. PAS: 1780 (N,P); CUT: 2258 (N), 2267 (P,M,C); PEN: 1497 (P), 1498 (N,P,W).

C. ALATA Torr. Plentiful around edge of an extensive boggy area near the center of Nashawena. NAS: 2486 (N,P).

C. FESTUCACEA Schkuhr. This is the small-fruited sedge retained by Mackenzie as genuine *C. festucacea*. See Bull. Torrey Bot. Club, xlii. 604 (1915). Apparently rare and local on the islands. NAU: 736 (N,P).

C. HOWEI Mackenzie. *C. scirpoides*, var. *capillacea* (Bailey) Fernald. See Mackenzie, Bull. Torrey Bot. Club, xxxvii. 245 (1910). Abundant in boggy woods and pond borders. NON: 2654 (N,P,M), 2659 (P), 3377 (C), 3299 (P); NAU: 728 (W), 1018 (P,W), 1088 (P,W); NAS: Pennell 2922 (W), 3542 (N,P); CUT: 727 (P,W).

C. INCOMPERTA Bicknell. Bull. Torrey Bot. Club, xxxv. 494 (1908). NAU: Pennell 2907 (G,W).

C. SEORSA E. C. Howe. Seen growing only in a boggy wooded hollow on the south shore of Nonamesset. NON: 3379 (N,P).

C. CEPHALANTHA (Bailey) Bicknell. *C. stellulata*, var. *cephalantha* (Bailey) Fern. See Bull. Torrey Bot. Club, 1. 346 (1923). Boggy woods at east end of Nashawena. NAS: 3643 (P).

C. CANESCENS L., var. DISJUNCTA Fernald. Boggy woods and wet borders of ponds. NON: 3378 (N), 3398 (P); NAU: Williams, July 10, 1911 (N), 1019 (P,W).

C. BRUNNESCENS Poir., var. SPHAEROSTACHYA (Tuckerm.) Kükent. See Fernald, RHODORA, xxviii. 162 (1926). Rare. Boggy hollow in woods at east end of Naushon, NAU: 2480 (P,W).

C. ROSEA Schkuhr, var. RADIATA Dewey. Apparently local. Collected in dry sandy woods at east end of Naushon. NAU: 2475 (P,W).

*C. contigua* Hoppe. *C. muricata* of most American authors. See Mackenzie, Bull. Torrey Bot. Club, 1. 236 (1923). Dry, open, sandy ground. NAU: 734 (P,W); CUT: 2283 (N,P), *Taylor* 2413 (P); PEN: 484 (P,W).

*C. MUHLENBERGII* Schkuhr. Rather frequent on exposed downs and in sandy clearings. NON: *Pennell* 2838 (W), 2245 (N), 3361 (P,M); NAU: 733 (W).

*C. CEPHALOPHORA* Muhl. Sandy oak and beech woods; local. NON: 2594 (N,P,W); NAU: 2463 (P).

*C. VULPINOIDEA* Michx. Wet depressions. NAU: 2394 (N,P,M,C); NAS: 3485 (N).

*C. LAEVIVAGINATA* (Kükent.) Mackenzie. See Britton & Brown, Ill. Fl. ed. 2, i. 371. (1913). Low, wet hollows; local. NAS: 3473 (P); CUT: 2281 (N).

*C. CRINITA* Lam. Swampy and boggy depressions. NAU: 723 (W); 2398 (P), 2936 (N); NAS: 3475 (P).

*C. MITCHELLIANA* Curtis. See Weatherby, RHODORA, xxv. 17 (1923). Rare on the Elizabeths. NAS: *Pennell* 2921, labelled "*C. crinita*" (W).

A species of the southern coastal plain ranging north to Cape Cod and Plymouth County.

*C. VIRESCENS* Muhl. Boggy woods; rare and local. NAU: 1020 (P,W), 3141 (N,P,M).

*C. SWANII* (Fernald) Mackenzie. Bull. Torrey Bot. Club, xxxvii. 246 (1910). *C. virescens*, var. *Swanii* Fernald. Dry, open ground and sandy woods. NON: 2588 (N,P), 3354 (P,C); NAU: *Pennell* 3132 (W), 3680 (N); CUT: 1012 (N,P,W,M), 3452 (P).

*C. COMMUNIS* Bailey. Dry, sandy beech woods; rare. NAU: 3324 (N,P).

*C. VARIA* Muhl. Sandy clearings, exposed knolls and hillsides; widespread. Some of the material approaches the scarcely separable forma *colorata* (Bailey) Kükent. NON: 3284 (N,P,C), 3300 (N,P), 3301 (P), 3285 (P); NAU: 3322 (N,P); NAS: 2361 (N,P,W,M).

*C. PENNSYLVANICA* Lam. Sandy banks and open grassland. NON: 3283 (N,P), 3353 (P,C); NAU: 3321 (N,P,M).

*C. PENNSYLVANICA* Lam., var. *SEPARANS* Peck in E. C. Howe, N. Y. State Mus. 48 Ann. Rep. 174 (1896). Var. *lucorum* (Willd.) Fernald. Seen only in dry beech woods at east end of Naushon. NAU: 2476 (P,W,M,C).

*C. LIMOSA* L. A far northern sedge which reaches the southern limit of its coastwise distribution in a bog at the west end of Cuttyhunk. CUT: 2311 (N,P,W).

*C. DIGITALIS* Willd. Apparently not common; sandy beech woods near Hadley Harbor. NAU: 2461 (P), 3323 (N,P).

*C. DEBILIS* Michx., var. *RUDGEI* Bailey. Collected only in a moist hollow on the hillsides of Cuttyhunk. CUT: 1011 (P).

*C. LANUGINOSA* Michx. Peaty margin of a slightly brackish pond at the extreme west end of Nashawena. NAS: 3500 (N,P).

*C. COMOSA* Boott. Swampy clearings and wet depressions; locally abundant. NON: 2905 (N,P); CUT: *Sanford*, Aug. 15, 1917 (N), 722 (W).

*C. LURIDA* Wahlenb. Pond borders and moist hollows. UNC: 2989 (N,P), 3646 (P,C); NAU: 2385 (N,P,M); NAS: 3474 (N,P).

*C. LUPULINA* Muhl. Boggy clearings and low moist situations. NAU: 2486 (N,P), 3882 (P,M,C); PAS: 519 (P,W); CUT: 731 (P,W).

### ARACEAE

*ARISAEMA TRIPHYLLUM* (L.) Schott. This seems to be the only *Arisaema* on the islands. It is abundant in the boggy and swampy woods at the east end of Naushon, and in similar situations on Nashawena. NAU: 752 (N), 3133 (W), 3317 (P,M,C), 3331 (P); NAS *Northrop* (o), 3528 (N,P).

*SYMPLOCARPUS FOETIDUS* (L.) Nutt. Seen only in a low swampy area at the extreme west end of Nashawena. NAS: *Northrop* (o), 3496 (N,P).

*ACORUS CALAMUS* L. Wet grassy hollows and swampy pond borders; locally abundant. NAS: *Northrop* (o), 3565 (P); CUT: 2282 (N).

### LEMNACEAE

*LEMNA MINOR* L. Occasional in small ponds in clearings. NAU: 2376 (N,P).

### ERIOCAULACEAE

*ERIOCAULON SEPTANGULARE* With. *E. articulatum* (Huds.) Morong. Sandy and peaty pond margins. NAU: *Pennell* 3118 (P), 2508 (P,M), 2942 (N); NAS: *Northrop*, Aug. 1901 (Y).

### XYRIDACEAE

*XYRIS CAROLINIANA* Walt. Apparently not sommon. Sandy beach bordering West End Pond, Naushon. NAU: 2919 (N,P); NAS: *Northrop*, Aug. 1901 (Y).

*X. TORTA* Smith. *X. flexuosa* Muhl. Reported by Mrs. Northrop from Nashawena; no specimen seen.

### PONTEDERIACEAE

*PONTEDERIA CORDATA* L. Collected only in swampy border of dune ponds on Nashawena. NAS: *Northrop* (o), 2368 (N,P), 3547 (P).

### JUNCACEAE

*JUNCUS BUFONIUS* L. Moist sandy or peaty soil. NAS: *Northrop*, Aug. 1901 (Y), *Williams* 1279 (N), *Pennell* 2918 (W), 3467 (P,M); CUT: 3575 (N,P).



*J. GERARDI* Loisel. Brackish areas; general. NON: 2877 (N); PAS: 1779 (P); NAS: *Northrop*, Aug. 1901 (Y); CUT: 2276 (N,P,M,C); PEN: 1094 (P,W), 1753 (N,P).

*J. TENUIS* Willd. Common everywhere; dry woods, gravelly shores, sandy paths and open fields. NON: 3191 (N); UNC: 3645 (P); NAU: 3136 (N); NAS: *Northrop*, Aug. 1901 (Y), 3468 (P); CUT: 3441 (N,P,M); PEN: 492 (P,W), 3400 (P).

Much of the material which has been collected can not satisfactorily be referred here, but is being held pending a critical comparison of our American *J. tenuis* with Old World collections, a comparison which may necessitate a careful revision of the entire species. The preceding few numbers are, however, cited as fairly typical.

*J. TENUIS* Willd., var. *WILLIAMSI* Fernald. This phase, with strongly divergent floriferous branchlets, has been met with occasionally. NAU: 2400 (N), 2710 (P,M).

*J. DICHOTOMUS* Ell. NAU: 1800 (P,W), 3162 (P); PEN: 1756 (N,P,W).

Under this heading is grouped a large series of variations, of which the variety *platyphyllus*, perhaps specifically distinct, represents only one trend. This matter is under consideration at present, and, until the species can be completely studied and revised, a few numbers only, out of an extensive series of collections, are cited.

*J. DICHOTOMUS* Ell., var. *PLATYPHYLLUS* Wiegand. PAS: 1781 (P); CUT: 1039 (P).

*J. GREENEI* Oakes & Tuckerm. This is one of the commonest plants of the dry open hillsides, being found on all of the islands. NON: 2247 (N,P,M,C), UNC: 3130 (P); NAU: 766 (P,W), 1802 (P); PAS: 765 (W); NAS: *Northrop*, Aug. 1901 (Y), 2362 (N); CUT: *Sanford*, Aug. 15, 1917 (N); PEN: 491 (N,P,W,M).

*J. EFFUSUS* L., var. *COSTULATUS* Fernald. RHODORA, xxiii. 239 (1921). Abundant in wet hollows and around ponds. NON: 2303 (P,M,C), 2567 (N,P); NAU: 2397 (P); PAS: *Svenson*, Sept. 8, 1926 (N); NAS: *Northrop*, Aug. 1901 (Y), *Williams*, July 10, 1911 (N), 1767 (N,P), 2347 (P); CUT: 2320 (N,P,M); PEN: 852 (P,W).

*J. EFFUSUS* L., var. *SOLUTUS* Fernald & Wiegand. RHODORA, xii. 81 (1910). Collected by the writer only in a boggy hollow in woods near Tarpaulin Cove. NAU: 2883 (N,P,M,C); NAS: *Northrop*, Aug. 1901, on sheet with var. *costulatus* (Y).

*J. CANADENSIS* J. Gay. Abundant in moist depressions and around ponds. UNC: 2994 (P); 3114 (N,P,C); NAU: 2918 (N,P,M); PAS: 3778 (P); NAS: *Northrop*, Aug. 1901 (Y); CUT: *Sanford*, Aug. 15, 1917 (N).

*J. PELOCARPUS* Mey. Sandy shores and sandy or peaty pond borders. NON: 2638 (P), 3203 (N); NAU: 1042 (W), 2379 (P),

2724 (M,C), 2925 (N,P); PAS: 3780 (P); NAS: *Northrop*, Aug. 1901 (Y); PEN: *Jordan* (o).

*J. MILITARIS* Bigel. Sandy and swampy pond margins. NAU: 1038 (P), 2917 (N,P); NAS: *Northrop*, Aug. 1901 (Y), *Williams*, July 10, 1911 (N), *Pennell* 2915 (P,W), 1037 (P,W).

*J. ACUMINATUS* Michx. Abundant in wet depressions and on boggy or peaty borders of small ponds in open hills. NON: 2242 (P,C), 2704 (N), 3163 (N,P,M); UNC: 2995 (N,P); NAU: 1041 (P,W), 2391 (N,P); PAS: 757 (P); NAS: *Northrop*, Aug. 1901 (Y), *Pennell* 2909 (W); CUT: 3442 (P); PEN: 489 (N,P,W,M), 1757 (P,W).

*J. ARTICULATUS* L. Occasional in boggy depressions. PEN: 490<sup>1</sup> (P), 1499 (W).

*J. ARTICULATUS* L., var. *OBTUSATUS* Engelm. Peaty, usually brackish, hollows. NAU: 3866 (N); CUT: 3574 (N,P).

*J. MARGINATUS* Rostk. Muddy borders of ponds. UNC: 3117 (N); NAU: 2390 (N,P,M), 2731 (P); PAS: 3779 (P); NAS: *Northrop*, Aug. 1901 (Y), 3562 (N).

*LUZULA CAMPESTRIS* (L.) DC., var. *MULTIFLORA* (Ehrh.) Čelak. Sandy bank at east end of Nonamesset. NON: 3369 (N).

*L. CAMPESTRIS* (L.) DC., var. *ECHINATA* (Small) Fernald & Wiegand. RHODORA, xv. 38 (1913). Collected only in sandy beech woods on Naushon. NAU: 3325 (N,P).

### LILIACEAE

*UVULARIA PERFOLIATA* L. Reported by Mrs. Northrop for Nashawena; no specimen seen.

*OAKESIA SESSILIFOLIA* (L.) Wats. Seen in a boggy, wooded hollow along the south shore of Nonamesset. NON: 3295 (N,P); NAS: *Northrop* (o).

*LILIUM PHILADELPHICUM* L. Reported by Mrs. Northrop from Nashawena and said by wife of caretaker there to grow abundantly at certain localities on the island today; no specimens seen.

*L. tigrinum* Ker. Found persisting around leper cottages on Penikese. PEN: 494 (P,W).

*Asparagus officinalis* L. In sandy soil near areas under cultivation. NAS: *Northrop* (o); PEN: 493 (N,P,W).

*MAIANTHEMUM CANADENSE* Desf. Abundant in boggy wooded hollow along south shore of Nonamesset. NON: 3296 (N); NAS: *Northrop* (o).

*MEDEOLA VIRGINIANA* L. Boggy woodland on Nonamesset and edge of brackish marsh at east end of Naushon. NON: 3337 (P); NAU: 3332 (N); NAS: *Northrop* (o).

*SMILAX ROTUNDIFOLIA* L. Rather abundant in thickets and wet, overgrown hollows. NON: 2296 (N,P); UNC: 3044 (N); NAS: *Northrop* (o); PEN: 495 (W).

<sup>1</sup> This is the material erroneously reported from Penikese as *J. debilis* Gray in RHODORA, xxvi. 223 (1924).

S. HERBACEA L. Reported by Mrs. Northrop from Nashawena; no specimen seen.

S. GLAUCA Walt., var. LEUROPHYLLA Blake. See RHODORA, xx. 78 (1918). Known only on basis of Mrs. Northrop's collection from Nashawena. NAS: *Northrop*, "July-Aug." 1901 (Y).

### AMARYLLIDACEAE

HYPOXIS HIRSUTA (L.) Coville. Abundant on open, sandy slopes and knolls at west end of Cuttyhunk. NAS: *Northrop* (o); CUT: *Sanford*, Aug. 15, 1917 (N); 2310 (P).

### IRIDACEAE

IRIS VERSICOLOR L. Wet depressions and pond borders; abundant. NON: 2678 (N); UNC: 3031 (P), 3121 (N); NAS: *Northrop* (o), 2357 (N); PEN: 496 (P,W).

I. PRISMATICA Pursh. Apparently not common; reported and collected by Mrs. Northrop from Nashawena. NAS: *Northrop*, "July-Aug." 1901 (Y).

SISYRINCHIUM ANGUSTIFOLIUM Mill. Seen growing only in dry sand along east shore of Penikese, where fairly plentiful. NAS: *Northrop* (o); PEN: 497 (P,W).

S. GRAMINOIDES Bicknell. *S. gramineum* Curtis, not Lam. Grassy slopes and pond borders. NON: 2300 (P), 3360 (N,P); CUT: 3449 (N,P,C); PEN: 3408 (N,P,M), 3415 (P).

S. ATLANTICUM Bickn. Wet hollows, open slopes and bogs. UNC: 3081 (P); CUT: 771 (W), 2318 (N,P,M,C), *Hervey* (N); PEN: 3401 (P).

### ORCHIDACEAE

HABENARIA BRACTEATA (Willd.) R. Br. Reported by Mrs. Northrop as "common in meadow" on Nashawena; no specimen seen. NAS: *Northrop* (o).

This is one of the surprises of the Northrop list. It is hard to believe that the compiler could have confused this species of the damp upland woods with *H. clavellata*, *H. blephariglottis* or *H. lacera*, all of which she likewise reported and the first two of which are represented by specimens at the New York Botanical Garden. It is greatly to be regretted that she did not also collect *H. bracteata*. As it is, however, there seems no course but to let this record stand.

H. CLAVELLATA (Michx.) Spreng. Open bogs, boggy pond borders and wet, peaty depressions. NAS: *Northrop*, July 1901 (Y), 3540 (N,P); CUT: *Sanford*, Aug. 15, 1917 (N), 2527 (P.)

H. ORBICULATA Torr. NAU: *MacRae*, July 25, 1904 (N).

Collected by Lillian J. MacRae on Naushon, July 25, 1904. Specimen originally in the local herbarium at Woods Hole but since



transferred to the collections of the New England Botanical Club. This, like *H. bracteata*, constitutes another remarkable addition to the flora of southeastern Massachusetts, for this plant has not previously been reported from nearer than Norfolk County.

*H. BLEPHARIGLOTTIS* (Willd.) Torr. Apparently rare; known only from Mrs. Northrop's collection on Nashawena. NAS: *Northrop*, Aug. 1901 (Y).

*H. LACERA* (Michx.) R. Br. Swampy and boggy hollows. NAU: 2606 (N); PAS: 1787 (P); NAS: *Northrop* (o); CUT: 2315 (P), 3576 (N).

*POGONIA OPHIOGLOSSOIDES* (L.) Ker. Locally abundant in open peaty and boggy depressions. PAS: 1789 (P); NAS: *Northrop* (o), *Williams*, July 10, 1911 (N); CUT: 524 (W).

*CALOPOGON PULCHELLUS* (Sw.) R. Br. Not infrequent; usually with the preceding. PAS: 1788 (N,P); NAS: *Northrop* (o); CUT: 523 (W).

*ARETHUSA BULBOSA* L. Mrs. Northrop reports this from Nashawena with the comment "quite common in some places." Unfortunately, no specimen is extant, but there seems to be no good reason for questioning this record. NAS: *Northrop* (o).

*SPIRANTHES BECKII* Lindl. Rare; seen only on dry hillside west of French Watering Place. NAU: 2946 (N).

*S. GRACILIS* (Bigel.) Beck. Dry, grassy, open slopes; fairly abundant. NON: 2622 (N); NAU: 2601 (N); NAS: *Northrop*, Aug. 1901 (Y).

*S. CERNUA* (L.) Richard. Local; wet, peaty hollows. UNC: 3024 (N,P); NAU: *Cushman & Morse*, Aug. 25, 1906 (B).

*LIPARIS LOESELII* (L.) Richard. Local; Mrs. Northrop's comment is "moist hollow in face southern cliffs." Taylor's sheet is from border of Sheep Pond. NAS: *Northrop*, Aug. 1901 (Y); CUT: *Taylor*, July 15, 1919 (N).

*TIPULARIA DISCOLOR* (Pursh) Nutt. This rare orchid, hitherto known on the islands of Massachusetts<sup>1</sup> only from an old collection on Martha's Vineyard, is listed by Mrs. Northrop from Nashawena as "quite common in 3 or 4 localities, c. & ne. part island." Fortunately, in this instance a specimen was preserved and is now in the herbarium of the New York Botanical Garden. NAS: *Northrop*, Aug. 1901 (Y).

### SALICACEAE

[*SALIX AMYGDALOIDES* Andersons. Appears on Mrs. Northrop's Nashawena list. This record probably refers to *S. alba* or some other willow and, in the absence of material, can scarcely be admitted.]

*S. pentandra* L. Introduced on Naushon and Penikese; apparently thriving on latter island. NAU: 3873 (P); CUT: 590 (N,P,W,M,C).

*S. alba* L. ×? This hybrid, probably *S. alba* × *fragilis*, is abund-

<sup>1</sup> See Fogg, RHODORA, xxxii. 114 (1930).

ant around a small freshwater pond on Penikese. PEN: 591 (N,P,W,M).

*S. DISCOLOR* Muhl. Reported by Jordan from Penikese; no specimen.

*Populus alba* L. In boggy woods near farmhouse on Nashawena and around dwellings on Penikese. NAS: *Northrop* (o), 3511 (P); PEN: 499 (N,P,W).

*P. TACAMAHACCA* Mill. *P. balsamifera* of most American authors. See Sargent, Jour. Arn. Arb. i. 61 (1919). Reported by Mrs. Northrop for Nashawena; no specimen seen.

*P. BALSAMIFERA* L. *P. deltoides* Marsh. See Sargent, Jour. Arn. Arb., i. 62 (1919). Small clump near landing on Penikese. PEN: 500 (P,W).

### MYRICACEAE

*MYRICA GALE* L. Only locally abundant, as around dune ponds on Nashawena. NAU: *Williams*, July 10, 1911 (N); NAS: *Northrop* (o), 1773 (N,P,W,M).

*M. CAROLINIENSIS* Mill.<sup>1</sup> A common shrub on the Elizabeths; thickets, pond margins, and sheltered hollows in open hills. NON: 2237 (N,P); UNC: 2951 (N); PAS: 1783 (N,P,W); NAS: *Northrop* (o), 2342 (N); CUT: *Sanford*, Aug. 15, 1917 (N); PEN: 498 (N,P,W).

### JUGLANDACEAE

*JUGLANS CINEREA* L. On Mrs. Northrop's list for Nashawena; no specimen seen.

*CARYA ALBA* (L.) Koch. Occasional in mixed woods. UNC: 2454 (N,P); NAU: 777 (P,W); NAS: *Northrop* (o).

### BETULACEAE

*CORYLUS CORNUTA* Marsh. *C. rostrata* Ait. Reported by Mrs. Northrop for Nashawena; no specimen seen.

*OSTRYA VIRGINIANA* (Mill.) K. Koch. An important constituent of the native woods, especially on Nonamesset and Naushon. NON: 2593 (N); NAU: 779 (P,W); NAS: *Northrop* (o).

*BETULA LUTEA* Michx. Mrs. Northrop reports two specimens near Choctauk Lake, Nashawena; no material seen.

*B. POPULIFOLIA* Marsh. Bordering woods and in protected hollows, where it often forms dense thickets. NON: 2635 (N,P,M); UNC: 3043 (N,P); NAS: *Northrop* (o); PEN: Jordan (o).

*B. pendula* Roth. Planted and established near eastern end of Naushon. NAU: 2471 (N,P).

*B. pubescens* Ehrh. *B. alba*, var. *pubescens* Spach. With the last. NAU: 2472 (N,P,M).

<sup>1</sup> This was the original spelling employed by Miller, Gard. Dict. ed. 8 (1768) and not *carolinensis*, as usually given.

**FAGACEAE**

**FAGUS GRANDIFOLIA** Ehrh. The most important tree on the islands. Forms a pure stand over large areas on Naushon and Nonamesset, and occurs mixed with other trees on these two islands as well as parts of Uncatena and Nashawena. When growing in the heavier woods this tree apparently does not form fruit, but an occasional isolated specimen in the open will be found laden with nuts. NON: 2592 (N); NAU: 3147 (N); NAS: *Northrop* (o), 3532 (P,M).

**F. GRANDIFOLIA** Ehrh., forma **PUBESCENS** Fernald & Rehder. See Rehder, RHODORA, ix. 111 (1907). Occasional with the species. UNC: 3125 (N); NAU: 3137 (P), 3693 (N,P).

**QUERCUS ALBA** L. Abundant; dry sandy woods. NON: 2657 (P); UNC: 3127 (N); NAS: *Northrop* (o), 3531 (P).

**Q. RUBRA** L. A single tree near landing on Penikese, where possibly introduced. PEN: 592 (N,P,W).

**Q. VELUTINA** Lam. Next to the Beech the most important constituent of the wooded areas. NON: 2656 (N), 3309 (P,M), 3916 (P); UNC: 3126 (P); NAU: 780 (P,W), 3880 (P); NAS: *Northrop* (o), 3530 (N,P).

[**Q. MARILANDICA** Moench is reported from Nashawena by Mrs. Northrop but is not represented by a specimen. The Black Jack Oak is unknown northeast of Long Island and it seems probable that this record refers to some other species, possibly a sapling of *Q. velutina*.]

**URTICACEAE**

**ULMUS AMERICANA** L. Reported by Mrs. Northrop from Nashawena, no specimen seen.

**Urtica urens** L. Listed by Mrs. Northrop as growing "about houses" on Nashawena; no specimen seen.

**BOEHMERIA CYLINDRICA** (L.) Sw. Moist woods and pond borders. Extremely variable and its relation to the variety *Drummondiana* not clearly understood. An extensive series has been collected and is being held for further study. The following is typical. NAU: 3151 (N,P,M,C); NAS: *Northrop* (o).

**B. CYLINDRICA** (L.) Sw., var. **DRUMMONDIANA** Weddell. Var. *scabra* Porter. See Fernald, RHODORA, xii. 10 (1910). Borders of salt marshes; perhaps distinct from var. *Drummondiana* of the south Atlantic states. CUT: 2523 (N).

**POLYGONACEAE**

**RUMEX BRITANNICA** L. Reported by Mrs. Northrop from Nashawena; no specimen seen.

**R. crispus** L. Waste places and pond margins; often appearing indigenous. NAS: *Northrop* (o); PEN: 598 (N,P,W,M), 3399 (P).

**R. obtusifolius** L. Occasional; the Nashawena collection was made from the swampy margin of thick woods. NAS: *Northrop* (o), 3566 (N); PEN: *Jordan* (o).



*R. VERTICILLATUS* L. Swampy margin of woods at east end of Nashawena with the last. NAS: *Northrop* (o), 3529 (N).

This and Block Island are the only stations for the plant in southeastern New England.

*R. MARITIMUS* L., var. *FUEGINUS* (Phil.) Dusén. *R. persicaroides*, in part, of the Manual. See St. John, RHODORA, xvii. 73 (1915). Brackish situations or muddy pond borders. NAU: 2372 (N,P); PEN: *Moore* 1917 (N), 450 (P,W).

*R. Acetosella* L. Exposed knolls, slopes and sandy clearings. NAS: *Northrop* (o); CUT: 2262 (N); PEN: 597 (N, P, W).

POLYGONUM GLAUCUM Nutt. *P. maritimum* of Manual. See Fernald, RHODORA, xv. 69 (1913). Sand and cobble beaches. NON: 2868 (P); UNC: 3051 (N); NAU: *Cushman & Morse*, Aug. 25, 1906 (B), *Williams*, July 10, 1911 (N); NAS: *Northrop*, Aug. 1901 (Y).

*P. AVICULARE* L. Sandy patches; not common. NAS: *Northrop* (o); PEN: 594 (P,W).

*P. PENSYLVANICUM* L. Not common; borders of small ponds. UNC: 2987 (N).

*P. PENSYLVANICUM* L., var. *LAEVIGATUM* Fernald. RHODORA, xix. 70 (1917). Moist situations; local. PAS: *Svenson*, Sept. 8, 1926 (N).

*P. HYDROPIPER* L., var. *PROJECTUM* Stanford. RHODORA, xxix. 86 (1927). Seen only from margin of small pond near east end of Nonamesset. NON: 3202 (N).

*P. PUNCTATUM* Ell. *P. acre* HBK. See Stanford, RHODORA, xxix. 77 (1927), where, in a footnote, reason is given for attributing priority to *P. punctatum* over *P. acre*. Pond borders, margins of swamps and wet situations generally. NON: 2893 (N,P,M), 2699 (P,M,C); UNC: 2986 (N,P), 3018 (P); NAU: 2371 (P), 2460 (P,C), 3150 (N,P,M); CUT: *Sanford*, Aug. 15, 1917 (N); PEN: 593 (N,P,W).

*P. Persicaria* L. Pond margins and moist depressions. UNC: 3017 (N); PAS: *Svenson*, Sept. 8, 1926 (N); NAS: *Northrop* (o); PEN: 596 (N,P,W,M).

*P. HYDROPIPEROIDES* Michx. Apparently not common. PAS: *Svenson*, Sept. 8, 1926 (N).

*P. OPELOUSANUM* Riddell, var. *ADENOCALYX* Stanford. See RHODORA, xxviii. 28 (1926). Pond borders. NON: 3207 (P); PAS: 3747 (N,P).

*P. Convolvulus* L. Trailing over thicket and low growth surrounding pond. PEN: 595 (N,P,W,M,C).

*P. SCANDENS* L. Covering scrub growth in swampy hollows. NON: 3172 (N,P); UNC: 3038 (N,P).

*P. DUMETORUM* L. This species, with smaller fruit than the preceding, was found only on Pine Island, Nonamesset, where it formed a dense tangle over the other vegetation on the beach. NON: 3912 (N,P).

**CHENOPODIACEAE**

*Chenopodium album* L. Beaches and exposed sandy areas. UNC: 2956 (N); NAS: *Northrop* (o); CUT: *Pennell* 2993 (P); PEN: 1401 (P,W).

*ATRIplex ARENARIA* Nutt. Sea beaches; not abundant. UNC: 3106 (N); PAS: 1793 (N,P), 3756 (P,M); NAS: *Northrop* (o); PEN: *Jordan* (o).

*A. PATULA* L., var. *HASTATA* (L.) Gray. One of the commonest plants of the sea beaches and disturbed sandy areas near the shore. UNC: 2978 (N,P); PAS: 1791 (N,P); NAS: *Northrop* (o), 3502 (P); CUT: *Pennell* 2996 (P), 2272 (N); PEN: 1400 (P,W), 3386 (M,C).

*SALICORNIA MUCRONATA* Bigel. Salt marsh areas; less frequent than the two following. NAU: *Pennell* 3146 (W); PAS: *Svenson*, Sept. 8, 1926 (N).

*S. EUROPAEA* L. Salt marshes and brackish mud flats. NON: 2892 (N); UNC: 3094 (N,P); PAS: *Svenson*, Sept. 8, 1926 (N); 3742 (P); NAS: *Northrop* (o); CUT: 3570 (N,P); PEN: *Jordan* (o).

*S. AMBIGUA* Michx. Same situations as last. NAU: *Pennell* 3112 (P), *Pennell* 3145 (W); PAS: *Svenson*, Sept. 8, 1926 (N), 3741 (N,P); CUT: 3571 (N,P,M,C).

*SUAEDA MARITIMA* (L.) Dumort. Reported by *Jordan* from Penikese; no specimen.

*S. LINEARIS* (Ell.) Moq. Salt marshes and brackish muds. UNC: 2963 (P,W), 3076 (N); PAS: 3739 (N,P); CUT: 3567 (P,M,C).

*SALSOLA KALI* L. Beaches and brackish marshes. NON: 2286 (N,P); NAU: *Cushman & Morse*, Aug. 25, 1906 (B), 3886 (P); NAS: *Northrop* (o), 2364 (N); CUT: 2273 (P); PEN: *Jordan* (o).

*S. KALI* L., var. *CAROLINIANA* (Walt.) Nutt. With the last; less abundant. UNC: 2961 (P), 3075 (N,P); PAS: 1792 (N,P).

**AMARANTHACEAE**

*Amaranthus retroflexus* L. Dry sandy soil near cultivated area. PEN: 1402 (N,P,W,M).

**PHYTOLACCACEAE**

*PHYTOLACCA AMERICANA* L. *P. decandra* L. See RHODORA, xvii. 180 (1915). Apparently rare; seen growing only along edge of boggy depression at east end of Pasque. NAU: *Pennell* 3174 (W); PAS: 3785 (N).

**AIZOACEAE**

*Mollugo verticillata* L. Bare, grassy slopes and sandy patches. NON: 2891 (N); UNC: 3052 (N,P); NAS: *Northrop* (o), 3470 (P).

**CARYOPHYLLACEAE**

*SPERGULARIA RUBRA* (L.) J. & C. Presl. Dry exposed slopes and sandy clearings. NAS: *Northrop* (o), *Williams*, July 10, 1911 (N), 3465 (P,M); CUT: 3459 (P); PEN: 1410 (P,W).

*S. SALINA* J. & C. Presl. Sand and cobble beach along Northwest Gutter. Rare; represented on these islands usually by the next species. NAU: 3132 (N, W).

*S. LEIOSPERMA* (Kindb.) F. Schmidt. *S. marina* of Manual, in part. See Fernald & Wiegand, RHODORA, xii. 157 (1910). Sandy and cobbly beaches, mud flats and brackish marshes. NON: 2290 (N); UNC: 2962 (N,P,M); NAU: 2455 (N); PAS: 3738 (N,P,C); CUT: 3569 (N,P); PEN: 1409 (P,W).

*Spergula arvensis* L. Not common. NAS: *Northrop* (o); PEN: *Jordan* (o).

*SAGINA PROCUMBENS* L. Upper beaches and dry, gravelly banks. NON: 2692 (N,P); NAU: 2728 (N); NAS: *Northrop* (o), 3464 (P); PEN: 1408 (W).

*ARENARIA LATERIFLORA* L. Seen growing only in sandy thicket along north shore of Naushon near the east end. NAU: 3318 (N); NAS: *Northrop*, "July-Aug." 1901 (Y).

*A. PEPLOIDES* L., var. *ROBUSTA* Fernald. See RHODORA, xi. 109 (1909). Occasional on sandy or cobbly beaches. CUT: 2274 (N,P); PEN: 1403 (W).

*A. serpyllifolia* L. Sandy and gravelly areas; occasional. NON: *Pennell* 2840 (W); NAU: 3424 (N); NAS: *Northrop* (o).

*Stellaria graminea* L. Grassland on Penikese. PEN: 1411 (P,W); 1760 (N,P).

*S. media* (L.) Cyrill. Dry, sterile soil and grassland on Penikese; probably more widespread. PEN: 855 (W), 3395 (N, P).

*Cerastium vulgatum* L. Abundant on open, grassy hillsides and sandy clearings. NON: 3367 (N,P,M), 3286 (P); NAS: *Northrop* (o); CUT: 3438 (P); PEN: 1404 (N,P,W).

*Agrostemma Githago* L. Reported by Mrs. Northrop from Nashawena; no specimen.

*Lychnis alba* Mill. Occasional in grassland on Penikese. PEN: 1407 (W).

*Gypsophila paniculata* L. Persistent around leper cottages on Penikese. PEN: 1406 (P,W).

*Dianthus barbatus* L. Same situation as the preceding. PEN: 1405 (W).

*D. Armeria* L. Seen only on edge of wet hollow at west end of Cuttyhunk. CUT: 3445 (N,P).

## PORTULACACEAE

*Portulaca oleracea* L. Sandy ground, usually near cultivated areas. NAS: *Northrop* (o); PEN: 1412 (W).

## NYMFAEACEAE

*NYMPHOZANTHOS VARIEGATUS* (Engelm.) Fernald. *Nymphara advena*, var. *variegata* Fernald. See Fernald, RHODORA, xxi. 183 (1919).



Dune ponds on Nashawena and Sheep Pond, Cuttyhunk; possibly more general. NAS: *Northrop* (o), 2366 (N,P); CUT: 786 (W), 2531 (N).

*NYMPHAEA ODORATA* Ait. *Castalia odorata* Woodv. & Wood. See RHODORA, xviii. 161 (1916). Rather general in smaller ponds as well as Sheep Pond, Cuttyhunk. UNC: 3004 (P); NAU: 2734 (N); NAS: *Northrop* (o), 2367 (N,P); CUT: 2530 (N).

### RANUNCULACEAE

*RANUNCULUS CYMBALARIA* Pursh. Sandy and gravelly shores; rather frequent. NON: 2302 (N,P); NAU: 528 (W,P); CUT: *Hervey*, no date, (N); PEN: *Northrop* (o), 1414 (W).

*R. DELPHINIFOLIUS* Torr. Small, grassy-bottomed ponds in open hills. NAS: *Northrop* (o), 3522 (P); PEN: 451 (P,W), 1759 (N,P,M).

[*R. REPTANS* L. appears on Mrs. Northrop's list. It is hard to say what this may refer to in the absence of a specimen. *R. reptans*, var. *ovalis* (*R. Flammula*, var. *reptans* of the Manual) is unknown from southeastern Massachusetts and it seems hardly justifiable to report it on the basis of such an ambiguous record.]

*R. bulbosus* L. Seen only on a steep gravel bank at the extreme east end of Nonamesset; possibly more abundant. NON: 3282 (N).

*R. acris* L. Rather common in open grassland, especially on outer islands. NAS: *Northrop* (o); CUT: 2325 (N); PEN: 1413 (N,P,W).

*THALICTRUM REVOLUTUM* DC. Reported by Mrs. Northrop as *T. purpurascens*, but had probably best be referred here. NAS: *Northrop* (o).

*ANEMONE VIRGINIANA* L. Collected in dry, sandy woods on "Captain's Island," Naushon. NAU: 3907 (P).

*A. QUINQUEFOLIA* L. Reported by Mrs. Northrop for Nashawena; no specimen seen.

*COPTIS GROENLANDICA* (Oeder) Fernald. *C. trifolia* of the Manual. See Fernald, RHODORA, xxxi. 136 (1929). Included in Mrs. Northrop's list with the comment "in one filled up pond under fern lvs. Very small, no fruit." NAS: *Northrop* (o).

This is an interesting addition to the flora of the islands. *Coptis* is unknown from Barnstable County, although represented in both Plymouth and Bristol Counties. Moreover, it is reported by Bicknell for Nantucket, where, as on Nashawena, it may be a remnant of a formerly more dominant continental flora. There seems to be no real reason, even in the absence of herbarium material, to discredit this record.

### BERBERIDACEAE

*Berberis Thunbergii* DC. Occurs scattered over the open hills at the east end of Uncatena. UNC: 2975 (N).

**LAURACEAE**

*SASSAFRAS OFFICINALE* Nees & Eberm. *S. variifolium* (Salisb.) Ktze. See Blake, RHODORA, xx. 98 (1918). Scattered abundantly throughout all of the wooded areas. NAS: *Northrop* (o), 3533 (P).

*S. OFFICINALE* Nees & Eberm. var. *ALBIDUM* (Nutt.) Blake. RHODORA, xx. 98 (1918). Occasional with the species. UNC: 3123 (N).

*BENZOIN AESTIVALE* (L.) Nees. Reported by Mrs. Northrop from Nashawena; no specimen.

**PAPAVERACEAE**

*Glaucium flavum* Crantz. Established on beach near Tarpaulin Cove. NAU: 789 (P,W), 1798 (N).

**CRUCIFERAE**

*Berteroa incana* (L.) DC. Dry sandy soil near landing at east end of Pasque. PAS: 3798 (N,P,M).

*LEPIDIUM VIRGINICUM* L. Open grassland and low sandy stretches. UNC: 3056 (N,P); PAS: 3762 (P); NAS: *Northrop* (o); CUT: 2259 (N,P); PEN: 1417 (N,P,W,M,C).

*Capsella Bursa-pastoris* (L.) Medic. Occasional in disturbed situations. NAS: *Northrop* (o); PEN: 854 (P,W).

*CAKILE EDENTULA* (Bigel.) Hook. Sandy and cobbly sea beaches, especially outer islands. NAS: *Northrop* (o); CUT: 2271 (N); 3431 (P); PEN: 1416 (P,W).

*Raphanus Raphanistrum* L. Disturbed sandy soil near cultivated areas. NAS: *Northrop* (o); CUT: 2268 (N,P,M,C); PEN: 1418 (W).

*R. sativus* L. Same situations as last. PEN: 1419 (N,P,W).

*Brassica juncea* (L.) Cosson. On peninsula, east end of Penikese. PEN: 1415 (P,W).

*B. nigra* L. Dry, sandy slope. NAU: 790 (W); PEN: *Jordan* (o).

*Sisymbrium officinale* (L.) Scop., var. *leiocarpum* DC. Barren, sandy ground; waste places. PEN: (N,P,W,M).

*S. altissimum* L. Same situations as the preceding. PEN: 1420 (W).

*Rorippa Nasturtium-aquaticum* (L.) Schinz & Thel. *Radicula Nasturtium-aquaticum* Britt. & Rendle. Seen growing along a moist rill draining into Sheep Pond, Cuttyhunk. NAS: *Northrop* (o); CUT: 1054 (P,W).

**DROSERACEAE**

*DROSERA ROTUNDIFOLIA* L. Boggy situations and borders of ponds. NON: 2652 (N), 3362 (P); PAS: 1786 (N,P); NAS: *Northrop* (o), 3472 (P).

*D. INTERMEDIA* Hayne. *D. longifolia* of Manual. Apparently not common; borders of dune ponds on Nashawena. NAS: 1778 (N,P), *Northrop* (o), *Williams*, July 10, 1911 (N).

**SAXIFRAGACEAE**

*RIBES HIRTELLUM* Michx., var. *CALCICOLA* Fernald. See Fernald, *RHODORA*, xiii. 76 (1911). Seemingly rare. NON: 2844 (P).

**HAMAMELIDACEAE**

*HAMAMELIS VIRGINIANA* L. Dry to moist woodland and thickets. Some of this material approaches the variety *parvifolia* Nutt. NON: 2591 (N,P); NAU: 3152 (N,P); NAS: *Northrop* (o), 3512 (P).

**ROSACEAE**

*SPIRAEA TOMENTOSA* L. Pond borders and moist hollows; abundant. NON: 2564 (N); PAS: 1784 (N,P); NAS: *Northrop* (o), 2345 (N,P).

*PYRUS ARBUTIFOLIA* (L.) L. f. Thickets and wet depressions; of frequent occurrence. NON: 2885 (N,P); UNC: 3046 (N,P); NAS: 1774 (N,P), 3495 (P).

*P. ARBUTIFOLIA* (L.) L. f., var. *ATROPURPUREA* (Britton) Robinson. Same situations as the last but less common. NON: 3175 (N,P); UNC: 3124 (N,P); NAS: *Northrop*, Aug. 1901 (Y).

*AMELANCHIER OBLONGIFOLIA* (T. & G.) Roem. Dense thickets and sheltered hollows; abundant. NON: 2630 (P), 2883 (N,P), 3205 (P), 3202 (P,C), 3308\* (P,M,C); PEN: 1421 (P,W).

*CRATAEGUS PRUINOSA* (Wendl.) C. Koch. Single tree on dry hillside near Tarpaulin Cove. NAU: 1801 (N,P).

*CRATAEGUS spp.* This genus is to be met with scattered throughout the dry, sandy beech woods, mostly on Naushon. Several collections have been made, but it has not been found possible to match this material with existing specimens or to reconcile it with available descriptions. Each individual plant appears to possess its own characteristics which differ from those of its neighbor, and, rather than give to these specimens names which assume a definiteness that they do not own, the problem is here left in abeyance.

*FRAGARIA VIRGINIANA* Duchesne. Dry open slopes and hollows. NON: 3287 (N); NAS: *Northrop* (o); PEN: 1422 (W).

*F. VIRGINIANA* Duchesne, var. *TERRAE-NOVAE* (Rydb.) Fernald & Wiegand. *RHODORA*, xiii. 106 (1911). Seen only in a sandy meadow near Cuttyhunk Pond. CUT: 3581 (N,P).

*F. vesca* L. Reported by Jordan from Penikese; no specimen.

*POTENTILLA NORVEGICA* L., var. *HIRSUTA* (Michx.) Lehm. *P. monspeliensis* L. See Bibliot. Bot. 16, Heft lxxi. 404 (1908). Dry open ground. PEN: 1424 (N,P,W,M).

*P. argentea* L. Dry sandy and gravelly soil. NAS: *Northrop* (o); PEN: 1423 (N,P,W,M).

*P. recta* L. Sandy clearing in woods near West Gutter. NAU: 3923 (N,P).



*P. PACIFICA* Howell. *P. Anserina* of Manual, in part. See Fernald, RHODORA, xi. 1 (1909). Shingle beach along south shore of Nonamesset. NON: 2874 (N,P,M); NAS: *Northrop*, as "*P. Anserina*" (o).

*P. PUMILA* Poir. Dry knolls and exposed sandy and grassy hill-sides. NON: 2677 (N,P), 3288 (P,M,C); PEN: 1425 (N,P,W).

*P. CANADENSIS* L., var. *SIMPLEX* (Michx.) T. & G. The Elizabeth Islands material seen all has narrow, oblanceolate leaves and short, more or less appressed, pubescence. Dry slopes and sandy clearings. NON: 3355 (N,P,M); CUT: 2536 (N).

*GEUM CANADENSE* Jacq. Apparently rare; boggy woods at east end of Nashawena. NAS: *Northrop* (o), 3544 (P).

*RUBUS OCCIDENTALIS* L. Edge of woods at west end of Nonamesset. NON: 2676 (N).

*R. PERGRATUS* Blanchard. Thickets and margins of boggy hollows. NAS: 3487 (P); PEN: 1428 (N,P,W).

*R. laciniatus* Willd. Well established on peninsula of Penikese. PEN: 1429 (N,P,W).

*R. ANDREWSIANUS* Blanchard. This is the commonest Blackberry on the Islands, occurring in wet overgrown hollows and in thickets on open slopes. NON: 2577 (P), 2626 (N,P); UNC: 3034 (P); NAU: *Pennell* 3135 (W), 2496 (P), 2497 (P).

*R. HISPIDUS* L. Abundant; apparently as much at home on the dry exposed hillsides as in the boggy depressions. NAS: *Northrop* (o), 3539 (N); CUT: 2312 (P), 2321 (N,P,M).

*R. FLAGELLARIS* Willd. *R. procumbens* of many authors. *R. villosus* of the manual. See Bailey, *Gentes Herb.* i. 234 (1925). Trailing over dry open sandy and gravelly ground. NAS: *Northrop* (o); PEN: 1430 (N,P,W).

*Rosa rugosa* Thunb. Established and thriving, usually along beaches, on several of the islands. NAU: *Taylor* 3077 (P); CUT: 3439 (N); PEN: 1427 (P,W).

*R. rubiginosa* L. Reported by Mrs. Northrop from Nashawena; no specimen seen.

*R. PALUSTRIS* Marsh. *R. carolina* of Manual and most American authors. See Fernald, RHODORA, xx. 91. (1918). Wet margins of ponds. NAS: *Northrop*, July, 1901 (Y), 2354 (N,W); PEN: 1426 (W).

*R. CAROLINA* L. *R. humilis* Marsh. See Fernald, l. c. Wet hollows and pond margins. NON: 2631 (N,P); NAS: *Northrop* (o), 3477 (P); CUT: 3461 (N).

*R. NANELLA* Rydb. N. Am. Fl. xxii (pt. 6), 497 (1918). Material collected from sandy thicket on Uncatena has dwarf stature and very narrow leaflets and corresponds in all essentials to Rydberg's description of this species. UNC: 3112 (N).

*R. VIRGINIANA* Mill. Moist hollows and swampy borders of ponds. NON: *Pennell* 2843 (P), 3173 (N,P), 3346 (P,M); PAS: 3746 (N,P).

*PRUNUS SEROTINA* Ehrh. Sheltered hollows, thickets and sandy woods. NON: 2671 (N,P); UNC: 3108 (P); NAU: 2501 (N,P); NAS: *Northrop* (o), 3519 (P); PEN: 1431 (W).

*P. MARITIMA* Wang. Apparently not very common; forms a dense thicket at east end of Nonamesset. NON: 3206 (N), 3303 (P,M); NAS: *Northrop* (o).

### LEGUMINOSAE

*Gleditsia triacanthos* L. Sandy woods near dwellings at east end of Naushon; originally introduced. NAU: 3925 (P).

*Genista tinctoria* L. Well established and spreading in fields at east end of Naushon and on Uncatena. UNC: 2976 (N); NAU: 796 (N, P,W).

*Cytisus scoparius* (L.) Link. Abundant and spreading on parts of Naushon (see p. 155); local elsewhere. NAU: *Miss Weir*, June 22, 1890 (N), *Moore*, 1903 (N); PAS: *Hollick*, Aug. 1898 (Y); NAS: *Northrop* (o).

*Ulex europaeus* L. A single large clump along road near Mary's Lake. NAU: 797 (W).

*Trifolium arvense* L. Dry open ground and sandy areas. NON: 2669 (P); UNC: 3012 (N); NAS: *Northrop* (o); CUT: 2257 (N); PEN: 1434 (P,W).

*T. pratense* L. Grassland; occasional. NAS: *Northrop* (o); PEN: 1435 (P,W).

*T. repens* L. Open fields and grassy levels. NAS: *Northrop* (o); CUT: 2261 (N,P); PEN: 3402 (N,P).

*T. hybridum* L. Open grassland; occasional. NAS: *Northrop* (o); PEN: 1436 (P,W).

*T. agrarium* L. Disturbed sandy soil near areas under cultivation. PEN: 1433 (N,P,W).

*Coronilla varia* L. Abundant on grassy hillside toward west end of Pasque. PAS: 795 (P,W).

*Robinia Pseudo-Acacia* L. At several localities along the north shore of Naushon, where doubtless planted but now spreading. NAU: 3874 (N,P); NAS: *Northrop* (o).

*DESMODIUM RIGIDUM* (Ell.) DC. Sandy woods and hills; not common. UNC: 2977 (N,P); NAU: 2600 (N,P).

*D. OBTUSUM* (Muhl.) DC. Sandy woods and clearings. NAU: 3910 (P,M,C), 3928 (N,P).

*LESPEDEZA PROCUMBENS* Michx. Not abundant; seen only in sandy woods on "Captain's Island." NAU: 3909 (N,P,M).

*L. VIOLACEA* (L.) Pers. Reported from Nashawena by Mrs. Northrop; no specimens seen.

*L. HIRTA* (L.) Hornem. On Mrs. Northrop's Nashawena list; no specimen seen.

*L. CAPITATA* Michx. Apparently not abundant; open, sandy bank on Uncatena, west end. UNC: 3129 (N).

*Vicia tetrasperma* (L.) Moench. Disturbed sandy area near landing. PEN: 1438 (W).

*V. Cracca* L. Dry, open ground. CUT: *Taylor* 3076 (P); PEN: 1437 (N,P,W,M,C).

*V. villosa* Roth. Dry sandy strip near Cuttyhunk Pond. CUT: 3579 (N,P).

*LATHYRUS MARITIMUS* (L.) Bigel. Sea beaches; commoner on outer islands. NAS: *Northrop* (o); CUT: 2263 (N,P); PEN: 1432 (N,P,W).

*L. PALUSTRIS* L. Known only from single collection on Nashawena. This material approaches var. *pilosus*. NAS: *Northrop*, "July-Aug." 1901 (Y).

*APIOS TUBEROSA* Moench. Occasional in wet hollows and around ponds. UNC: 3089 (N); NAS: *Northrop* (o); CUT: 2328 (N,P).

*AMPHICARPA MONOICA* (L.) Ell. Sandy woods near Hadley Harbor. NAU: 3917 (N,P); NAS: *Northrop* (o).

### LINACEAE

*LINUM STRIATUM* Walt. Dry hillsides and peaty pond margins. CUT: 2330 (P), 2538 (N,P).

*L. VIRGINIANUM* L. Dry sandy woods. NAU: *Williams & Collins*, July 10, 1911 (N), 2381 (N,P).

### OXALIDACEAE

*OXALIS STRICTA* L. Open sandy hillsides and sandy clearings. UNC: 3096 (P); NAU: *Pennell* 3142 (W), 2498 (P), 3682 (P); NAS: *Northrop* (o); PEN: 1439 (N,P,W).

### GERANIACEAE

*GERANIUM MACULATUM* L. Seen only on an exposed gravel bank at upper margin of beach along north shore of Nonamesset. NON: 3364 (N,P).

*G. CAROLINIANUM* L. Burnt-over ground near hospital building on Penikese. PEN: 1440 (W).

### SIMARUBACEAE

*Ailanthus glandulosa* Desf. Naturalized and spreading at several localities on Naushon and Nashawena. NAS: *Northrop* (o), 3481 (P).

### M POLYGALACEAE

*POLYGALA POLYGANA* Walt. Open sandy and grassy hillsides. NAU: 2477 (N); NAS: *Northrop*, "July-Aug." 1901 (Y).

*P. SANGUINEA* L. Low boggy ground. Not common. NAS: *Northrop* (o), 3563 (N).

*P. CRUCIATA* L. Peaty and boggy pond borders; apparently not widespread. CUT: *Sanford*, Aug. 15, 1917 (N), 2514 (N,P).

### EUPHORBIACEAE

*ACALYPHA VIRGINICA* L. Known only from a sheet of Dr. Pennell's collecting on Naushon. NAU: *Pennell* 3140 (W,P).



A. DIGYNEIA Raf. See Weatherby, RHODORA, xxix. 193 (1927). Rare. Boggy depression in open hills near east end of Uncatena. UNC: 3131 (N).

A. GRACILENS Gray. Dry hillsides and moist depressions; local. UNC: 2974 (P), 3087 (N).

EUPHORBIA POLYGONIFOLIA L. Sea beaches and low sandy stretches. NON: 2870 (N); UNC: 3008 (N); PAS: 3755 (P,M); NAS: *Northrop*, "July-Aug." 1901 (Y); PEN: *Jordan* (o).

E. MACULATA L. Sandy beaches and dry exposed slopes. NON: 2869 (N); NAU: 2499 (P); PEN: *Jordan* (o).

### CALLITRICHACEAE

CALLITRICHE PALUSTRIS L. Apparently rare and local. NAS: *Northrop* (o), 3521 (P).

C. HETEROPHYLLA Pursh. Small ponds in hills; more frequent than last. NON: 2235 (N); PEN: 456 (W), 1095 (P,W), 1758 (N,P).

(To be continued)

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A CAREX NEW TO NEW ENGLAND.—On a hasty trip to Mt. Katahdin, on 2 September, 1929, I gathered a few specimens of *Carex* around the shores of Chimney Pond. These were later submitted to Professor Fernald, who informs me that one of them (no. 21,180, now deposited in the Herbarium of the New England Botanical Club) is *C. anguillata* Drejer, a species described from Iceland and also known from northern Labrador, northern Ungava, and Wager Inlet on the northern side of Hudson Bay.—ARTHUR STANLEY PEASE, Amherst College.

*Volume 32, no. 382, including pages 187 to 222, was issued 14 October, 1930.*



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